

January 20, 2004 CPC



STAFF'S
REQUEST ANALYSIS
AND
RECOMMENDATION

04PR0201

NPR Group, L.L.C.
(Grand Oaks Apartments)

Bermuda Magisterial District
North line of West Hundred Road and west line of Womack Road

REQUEST: Site plan approval.

Specifically, the applicant is requesting Planning Commission approval of a site plan, as required by Proffered Condition 18 of zoning Case 03SN0119.

RECOMMENDATION

Staff recommends deferral for thirty (30) days for the following reasons:

- A. The applicant has not yet complied with Proffered Conditions 1, 5 and 9 of zoning Case 03SN0119 that require these three (3) proffered conditions be accomplished prior to site plan approval.
- B. The applicant has not yet provided sufficient information to address Proffered Condition 4.d. of zoning Case 03SN0119. This proffered condition addresses the crossover designs with turn lanes along Route 10 and the applicant is still working on addressing solutions with an off-site property owner.

The text of the above referenced proffered conditions are provided in the Background Section of this report.

Should all of these issues be resolved prior to the time of the public hearing, staff will recommend approval subject to one (1) condition with staff comments for the following reasons:

- A. All conditions in the zoning case required to be complete prior to the Planning Commission granting site plan approval will be addressed.

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- B. The site plan, as revised to address all site plan review comments, noted in the condition below, will meet all requirements of the zoning case and the Zoning Ordinance.

CONDITION

Plans shall be revised and submitted for administrative review that address the following Review Comments. (P)

REVIEW COMMENTS

1. The right turn lane must be extended up to the existing entrance radius. The length of the turn lane should be 150 feet of stacking and eighty (80) feet (+/-) of taper. (VDOT)
2. Show the right of way line south of the West Hundred Road. (VDOT)
3. Add cross sections for:
 - (a) The left turn lane and median. The pavement design for the turn lane.
 - (b) The right turn lane with guardrail. (VDOT)
4. The length of the sight distance for the West Hundred Road should be 650 feet. These lines must be shown in plan view. Small scale can be used. (VDOT)
5. A striping plan must be added to the plan set. (VDOT)
6. The narrative for all construction activities within State maintained right of way is a prerequisite for site plan approval and must be shown on the plans. These plans can be found at "Virginia Work Area Protection Manual" dated 2003. The detailed work area protection layout should include a construction sequencing/maintenance of traffic plan. The plans for this project have been sent to the Richmond District Traffic Section for detailed review. Comments will be provided upon completion of review. (VDOT)
7. Show the design vehicle turning movements at proposed intersection of Route 10 and Womack Road to insure the entrance has enough pavement for the design vehicle to enter the site without tracking the curb of the median and the access radii. (VDOT)
8. A "one way" sign must be install on the median for the two (2) new entrances at West Hundred Road. (VDOT)
9. Curb and gutter on state right of way must have a stone base, as specified by VDOT standards. Stone must be a minimum of four (4) inches deep and extend

one (1) foot behind back of curb. Revise the curb and gutter detail to reflect this comment. (VDOT)

10. The CG-6 must be continued beyond the sidewalk at the end of Womack Road with a CG-12 handicap ramp. (VDOT)
11. According to the tentative recommendation, an eight (8) foot shoulder must be constructed at both sides of Womack Road. Revise the typical section of Womack Road to reflect that. (VDOT)
12. Show the relocation of the guardrail at the intersection of Womack Road and West Hundred Road. (VDOT)
13. Clarify the necessity of super elevation of the extended Womack Road. (VDOT)
14. A temporary turn around easement is to be required and shown in the plans for the temporary cul-de-sac at the end of the Womack Road. (VDOT)
15. Standard UD-4 is required with design ADT of 1,000 VPD or greater. Insure the design provides for sufficient outfall into a storm sewer system. Underdrains must be shown on the roadway plans and typical sections. Add a detail. This detail can be found at Road and Bridge Standards, Volume 1, page 109.01. (VDOT)
16. The curb and gutter must be continued to the right of way through the radii of the site entrance of West Hundred Road. (VDOT)
17. A note must be placed adjacent to the hydraulic structures schedule specifying use of VDOT standard ST-1 steps in all structures with a depth of four (4) feet or greater. (VDOT)
18. Include VDOT standard PB-1 storm sewer bedding detail to the plan assembly. (VDOT)
19. Add a profile for the storm sewer system of structure number seventy-one (71) to seventy-three (73). Identify them as existing structures in plans and profiles. (VDOT)
20. VDOT drainage easements are required for the structures numbers seventy-nine (79), eighty (80) and eighty-one (81). (VDOT)
21. The plan for the proposed cross over at West Hundred Road has been sent to the Richmond District Traffic Engineering Section for detailed review. Comments will be provided upon completion of said review.

22. Proffered Condition 1 of zoning Case 03SN0119 states that prior to any final site plan approval, 100 feet of right of way on the north side of Route 10, measured from the centerline of that part of Route 10 immediately adjacent to the property, shall be dedicated, free and unrestricted, to and for the benefit of Chesterfield County. (T)
23. Proffered Condition 5 of zoning Case 03SN0119 states that prior to any site plan approval, a phasing plan for the required road improvements, as identified in Proffered Condition 4, shall be submitted to and approved by the Transportation Department.

The note that was added to Sheet 1 addresses this proffer; however, not all improvements are shown. Proffered Condition 4.d. requires construction of adequate left turn lanes at the existing crossovers on Route 10 located just east and west of the Womack Road Extended intersection, unless otherwise approved by the Planning Commission.

Proffered Condition 4.g. requires construction of additional pavement along Womack Road Extended at the approved access to provide left and right turn lanes, if warranted. Based on Transportation Department standards, a left turn lane into the site is warranted.

Proffered Condition 4.h. requires replacement of any of the existing trees in the median of Route 10 that are removed by construction of the road improvements as described in Proffered Condition 4.d. Two (2) replacement trees shall be installed for every existing tree that is removed. Unless otherwise approved by the Transportation Department, replacement trees shall: 1) be installed in the Route 10 median, east and/or west of the Womack Road Extended intersection; 2) have a minimum of three (3) inch caliper; and 3) be from the list of approved plantings by the Virginia Department of Transportation. (T)

24. Show how Womack Road will be extended in the future onto the existing County-owned right of way. This road should be designed using a VDOT urban minor arterial (fifty (50) mph) standard. At a minimum, horizontal curves must be shown for this extension onto the adjacent property to the east. (T)
25. The three (3) lane section of Womack Road at the Route 10 intersection must be extended 200 feet north into the site. (T)
26. Prior to issuance of a Certificate of Occupancy, Womack Road from Route 10 to the site entrance must be accepted by VDOT. (T)
27. Prior to issuance of a building permit, a bond must be posted for construction of Womack Road Extended. (T)

28. Proffered Condition 9 of zoning Case 03SN0119 states that prior to any site plan approval, an access easement, acceptable to the Planning and Transportation Departments, shall be recorded from Womack Road Extended, across the property, to adjacent properties to the north. (T)
29. Additional fire lane marking shall be provided in the following areas: (a) Sheet C3.1 - at the landscape parking circle adjacent to Building 1, (b) Sheet C3.2 - at the circle area adjacent to the clubhouse building. (F)
30. On Sheet C3.3 remove the portion of the note, regarding the emergency access road, that indicates that "signage denoting the emergency access road is optional and at the discretion of the homeowners association". The signage is required. A note to that effect shall replace the deleted portion referenced above. Additionally, provide a graphic of the "Fire Department emergency access road only," indicate colors and letter size. (F)
31. Provide a fire hydrant within fifty (50) of the various Fire Department connections. Additionally, show the location of all fire department connections. (F)
32. On Sheet 8.1 change the reference from ISO to IFC. Minimum required fire flows are 1,500 gpm. (F)
33. Private sewers are not acceptable where there is the possibility of serving adjacent properties with public sewer. Please review previous Comment 11. (U)
34. Submit a separate meter sizing form for each meter shown. (U)
35. A monitoring manhole is required on the sewer lateral from the carwash. (U)
36. A two (2) inch tap is shown for the 5/8 inch meter for the carwash/maintenance building. The tap will be 3/4 inch. (U)
37. Notes refer to carrying the waterline under storm pipes by transition but the detail shows lowering by bends. For transition, there must be no tee, valve or service within fifty (50) feet of the crossing pipe and a profile, and add to the detail all information from standard WAT-8 (all joints restrained, mechanical joint pipe, extend mechanical joint pipe and restraint x' beyond each upper bend). (U)
38. Do not show branch lines skewed out of tees without calling for a bend. (U)
39. Do not show service lines from mains at other than ninety (90) degrees. (U)
40. Four (4) inch waterline is required to be ductile iron pipe. (U)
41. Show a four (4) inch valve after the 8:4 reducer at Building 18. (U)

42. At the eight (8) inch waterline termination at Building 7, show a pipe stub to the property line, a two (2) inch flushing hydrant and all joints restrained for fifty (50) feet back from the end. (U)
43. The site boundary survey is incomplete. A bearing along parcel 785-654-7059 at the northwest edge of the property is W 33 26 39 E. (EE)
44. A portion of the Perdue Lumber Subdivision (5670.01) must be vacated. (EE)
45. It is the responsibility of the applicant to comply with and/or acquire all applicable federal and/or state permits in relationship to environmental features including but not limited to "wetlands, surface waters (e.g. VPDES permit for construction sites of one (1) acre or more, ground water and air quality". Final approval of these plans will not relieve you of your responsibility. Wetlands documentation must be received by this department prior to issuance of the land disturbance permit. (EE)
46. Show top of wall/bottom of wall spot elevations for the proposed retaining walls on the grading plan sheets. If the wall is over three (3) feet in height, safety measures must be provided. (EE)
47. Specify CG-6 for the drive on the southeast side of Building 3 on sheet C5.3 where runoff flows towards the face of curb. (EE)
48. Manholes or D.I.s are required at all locations where the pipe slope changes. Address for structures seventy-one (71)a through seventy-three (73)a. (EE)
49. Realign structure seventy-six (76) to provide a better flow angle transition from the open channel. (EE)
50. A VDOT standard endwall is required on all multi line structures, structures with diameters greater than thirty (30) inches and when the structure is proposed on a slope of fifteen (15) percent or greater. Address for structure twenty-four (24)d in the storm sewer schedule and the profile. (EE)
51. Establish the 100 year floodplain along the northwest side of the site. (EE)
52. Dimension the initial clearing limits on the Phase One Erosion Control Plan. This must include dimensioned areas for construction of the sediment traps and basin. (EE)
53. Provide an erosion control narrative for the intermediate erosion control phase. (EE)
54. Safety fence (Std. & Spec. 3.01) is required around all sediment traps and sediment basins. Show in the plan view on the erosion control plan sheets. (EE)

55. An MS-19 analysis must be performed at each point of concentrated discharge and at the downstream property line. Address downstream of Structure eighty-one (81) (formerly seventy-four (74)). (EE)
56. The following comments are in reference to the pre-developed calculations:
 - A. The overland flow portion of the time of concentration calculation must be revised to 200 feet.
 - B. The runoff coefficient used in the overland flow calculations must be consistent with the runoff coefficient used in the pre-developed runoff calculations.
 - C. Show the flow paths used to calculate the time of concentrations. (EE)
57. As a reminder, the allowable release rates must be revised in the inflow hydrographs for the 2/10/100 year SWM/BMP routings per the above comment. (Proffered Condition 15 must also continue to be addressed) (EE)
58. The SWM/BMP routing will be reviewed by this department once the above comments have been addressed. (EE)
59. The soil stockpile area now shown conflicts with Buildings 21 and 22. Clarification on this location is required. (EE)
60. All points of concentrated inflow to the SWM/BMP facility must tie into the basin at the normal water surface or below. If the outfall is submerged, a minimum of three (3) feet is required between the invert of the inflow structure and the bottom of the basin. Address for Structures forty-six (46) and sixty-six (66). (EE)
61. All SWM/BMP facilities which are more than four (4) feet in depth or more than one (1) acre foot in surface area must provide both a safety bench and an aquatic bench, or be enclosed within a six (6) foot high perimeter fence. A gate must also be provided which aligns with the twenty (20) foot access easement. The fence must be off-set on top of the embankment to allow room for construction equipment to maneuver. (EE)
62. A fifty (50) foot vegetative perimeter yard is required around the basin measured from the 100 year water surface elevation or the downstream toe of dam, whichever applies. This area must be included within the limits of the SWM/BMP easement. (EE)
63. The exception for the perimeter yard and the six (6) foot high fencing requirements will be reviewed by this department once the routing calculations have been finalized. Please resubmit the exception letter with supporting documentation and details with the next plan submittal. (EE)

64. Perforations in the riser must be precast, not field made. Please add a note to the riser detail. (EE)
65. The SWM/BMP profile must show the impermeable clay core keyed into natural ground. (EE)
66. The emergency spillway must be moved so that the outflow does not flow against the toe of dam. (EE)
67. Permission must be obtained from the adjacent property owner(s) allowing for grading on the property, as proposed prior to issuance of a land disturbance permit. (Uphoff property as shown on Sheet C5.2) (EE)
68. The name, "walk-in address" and telephone number of a local registered agent representing the owner for service of process must be provided prior to issuance of a land disturbance permit. (EE)
69. All on-site drainage easements including stormwater/BMP drainage easements must be recorded prior to issuance of a building permit for this project. (EE)
70. The stormwater/BMP facility must be certified by a professional engineer prior to issuance of any occupancy certificates. (EE)
71. The riser and barrel pipe associated with the sediment basin must be on-site prior to issuance of a land disturbance permit. (EE)
72. Prior to issuance of a land disturbance permit, a diskette/cd, the format of which shall be autocad.dwg or .dxf, must be submitted to Virginia Barbour of Environmental Engineering. The diskette/cd must contain the following, each in a separate layer:
 - A. Final grading contour lines (five (5) foot intervals);
 - B. Proposed building footprint;
 - C. All impervious area (parking lots, driveways, roads, etc); and
 - D. The storm sewer system.

A layer report printed from Autocad must be submitted with the diskette/cd. Both the diskette/cd and the report must be labeled with the site plan name, site plan number and the engineering firm. All Autocad files must be referenced directly to the Virginia State Plane Coordinate System, South Zone, in the NAD83 datum. (EE)
73. A land disturbance permit is required for this project and the following are required prior to its issuance:
 - A. Substantial or full site plan approval
 - B. A VDOT land use permit

- C. A letter must be received from a qualified wetlands expert stating:
1. There are no wetlands impacted on this project, or
 2. The wetlands impacted are less than 0.1 acre and Corps of Engineers notification is not required, or
 3. All applicable federal and state wetland permits have been acquired (copies of the permits must be submitted) (EE)
74. Streets need to be named. (HN)
75. Streets named must be approved through "Richmond Regional Planning District Commission Street Name Clearinghouse" and/or "Crater Planning District Commission Street Name Clearing House." Verification submitted to David Valleau, Address Technician, Environmental Engineering. (HN)
76. Street address sign location not shown. The address can be part of your monument sign. This does not count as part of the square footage of the sign. If you are using the monument sign for the address, a detail of the monument sign needs to be on the site plan. (HN)
77. If the lot is a through or corner lot and the street address sign will be visible from more than one (1) road, the street name should be included in the sign (HN)
78. Note the material that the address sign is to be made of (material to be more durable than wood). (HN)
79. A foot print floor plan must be submitted to house numbering prior to substantial approval so that addresses may be assigned. (HN)
80. Put a revision date on the resubmitted plans. Resubmit twelve (12) full sets and one (1) copy of the site plan sheet to the Planning Department for your next review. Use the spaces below each comment to describe how you have addressed each review comment. Be sure to indicate which sheets show the required changes. Provide a transmittal letter to describe any changes to the plans not caused by the staff review comments. (P)
81. Per previous Comment 5, provide dimensions for the closest distances between adjacent buildings. The minimum distance is thirty (30) feet. Provide thirty (30) feet from the maintenance building to Building 20. Revise other buildings as needed. (P)
82. Per previous Comment 8, 2.78 acres of recreation area is required. Revise the areas shown on Sheet 1.1 so that areas within the setback are excluded. As a reminder, you may count the area of connecting walks. Provide calculations for individual areas and a total. (P)

83. Part of the graphics per previous Comment 13 have been added. Show the sides of curb ramps. There are a few locations where the sloped sides will interfere with normal pedestrian flow. As a suggestion, revise the plans to correct this problem. (P)
84. Per previous Comment 17, show the top of wall elevations on the grading plan. (P)
85. Per previous Comment 18, provide safety rails for all retaining walls with a fall of forty-eight (48) inches or greater. Provide a detail of the rail and installation. (P)
86. Per previous Comment 19, provide color and materials for the sectional retaining walls for architectural review. (P)
87. Per previous Comment 20, show all setback lines on the site plan. Show the setback along Womack Road. (P)
88. Per previous Comment 24, the minimum distance from the building to a drive is twenty-five (25) feet. Revise the plans to provide the required distance for Buildings 20 and 22. (P)
89. Per previous Comment 27, provide approval from Parks and Recreation for the walk to the park. (P)
90. The revised plans indicate a walk extending to the right of way line near Building 1. Extend this walk to the new walk provided along Route 10. (P)
91. The sheet title on Sheet A1.05 appears incorrect. Revise to indicate that floor plans for building type five (5) and six (6) are shown. (P)
92. As a reminder, prior to release of building permit, payment must be made per Proffered Condition 16. (P)
93. Revise the building types shown on Sheet C3.2 for senior housing to match the revised types five (5) and six (6), per the architectural plans. (P)
94. Remove the note above the gate detail on Sheet C3.3 as it does not apply. Verify that the gate dimensions will work for a road width of twenty-four (24) feet. Provide a substitute note, if required by Fire. (P)
95. Per previous Comment 52, show the existing power poles that will be relocated and the new locations, including the overhead power line locations. (P)
96. The revised plans indicate a conflict of a walk and the BMP fence location north of Building 9. (P)

97. Revise the site plans to include a walk from the curb ramp and the walk south of Building 14. (P)
98. Provide text within the architectural set indicating that all units have connections for washer and drier. (P)
99. The revised plans removed owner, GPIN and address information from Sheet C2.0 for the subject property. Return this information to this sheet. (P)
100. Extend the proposed easement to the Williams property to the north to the property line. (P)
101. The revised architectural elevations require additional information, such as siding colors and roof shingles (should be dimensional shingles) and additional brick or details to meet the architectural style per the proffered condition. Provide details of common elements such as columns and brackets. Provide partial elevations or text explanations of areas not shown in the elevations provided to provide information for inside corners. (P)
102. Some of the architectural elevations do not appear to match the floor plans. As an example the rear elevation indicates four (4) columns on building type one (1) that do not seem to be indicated on the floor plans. A roof line and gable end are not indicated in the side/courtyard elevation. Revise. (P)
103. The required planting for the setback along Womack Road must be distributed along the setback and not concentrated at the sign. Revise the plan to distribute the planting within the setback. (P)
104. Since plant requirements for buffers and setbacks are being met with existing plants, provide a note on the landscape plan indicating that upon completion of grading, an on-site meeting will be held to inspect existing trees and required densities to determine additional planting for the buffers and setbacks. The owner will confirm a date and time with the Planning Department Site Plan Team representative. (P)
105. The planting plan indicates a tree to be located within the parking area at the gazebo. If parking is installed a new location will be needed. (P)
106. The plan labels trees in the north buffer but does not show the tree locations. Tree locations, if required, will be determined at time of on-site review. (P)
107. The revised plans deleted more plants from the BMP than needed as an amenity. While trees may not be planted on the dam, small shrubs may be used. Provide additional planting between the buildings and the BMP. Consider use of a small fountain or other method to maintain water quality. (P)

108. The plant label "LM," shown on the Route 10 Planting Plan on Sheet 11.0, does not match a tree in the plant schedule. Correct. (P)
109. Revisions to the Route 10 Planting Plan may be required upon review by VDOT or due to final resolution of final road configuration. (P)
110. A durable sign up to six (6) square feet will need to be placed on the compactor and recycle gates stating "No service between 9pm-6am". Provide a detail of the signs and placement. (P)
111. As a reminder, prior to Planning Commission site plan approval, an access agreement acceptable to the Planning and Transportation Departments must be recorded from Womack Road to the property to the north. (P)
112. Per previous Comment 46, provide two (2) copies of an irrigation/hose bib plan that show that all required planting is either irrigated or within 100 feet of a hose bib. Hose bibs should be shown on the landscape plan. Make sure that the water information is included on the Utility Department meter sizing forms. Show all connections to the water line. (P)
113. Per previous Comment 47, provide architectural elevation for the gazebo. (P)

GENERAL INFORMATION

Associated Public Hearing Case:

03SN0119 - John G. "Chip" Dicks

Developer:

NPR Group L.L.C.

Design consultant:

Site Engineering - Timmons Group
Architecture and Landscape Architecture - Cline Design Associates PA.

Location:

North line of West Hundred Road approximately 230 feet west of Womack Road, also fronting approximately 770 feet on the west line of Womack Road, approximately 200 feet west of West Hundred Road. Tax IDs 785-653-5567, 7929, 9019; 785-654-Part of 5817 and 7621; 786-653-0382; and 786-654-0329 (Sheet 26).

Existing Zoning and Land Use:

R-MF; Single family residential or vacant

Size:

27.8 acres

Adjacent Zoning and Land Use:

North - R-7 and R-7 with Conditional Use (Stock farm); Single family residential or vacant

South - A, R-7 and O-2; Single family residential or vacant.

East - R-7 and C-2; Single family residential, commercial or vacant

West - A; Vacant

BACKGROUND

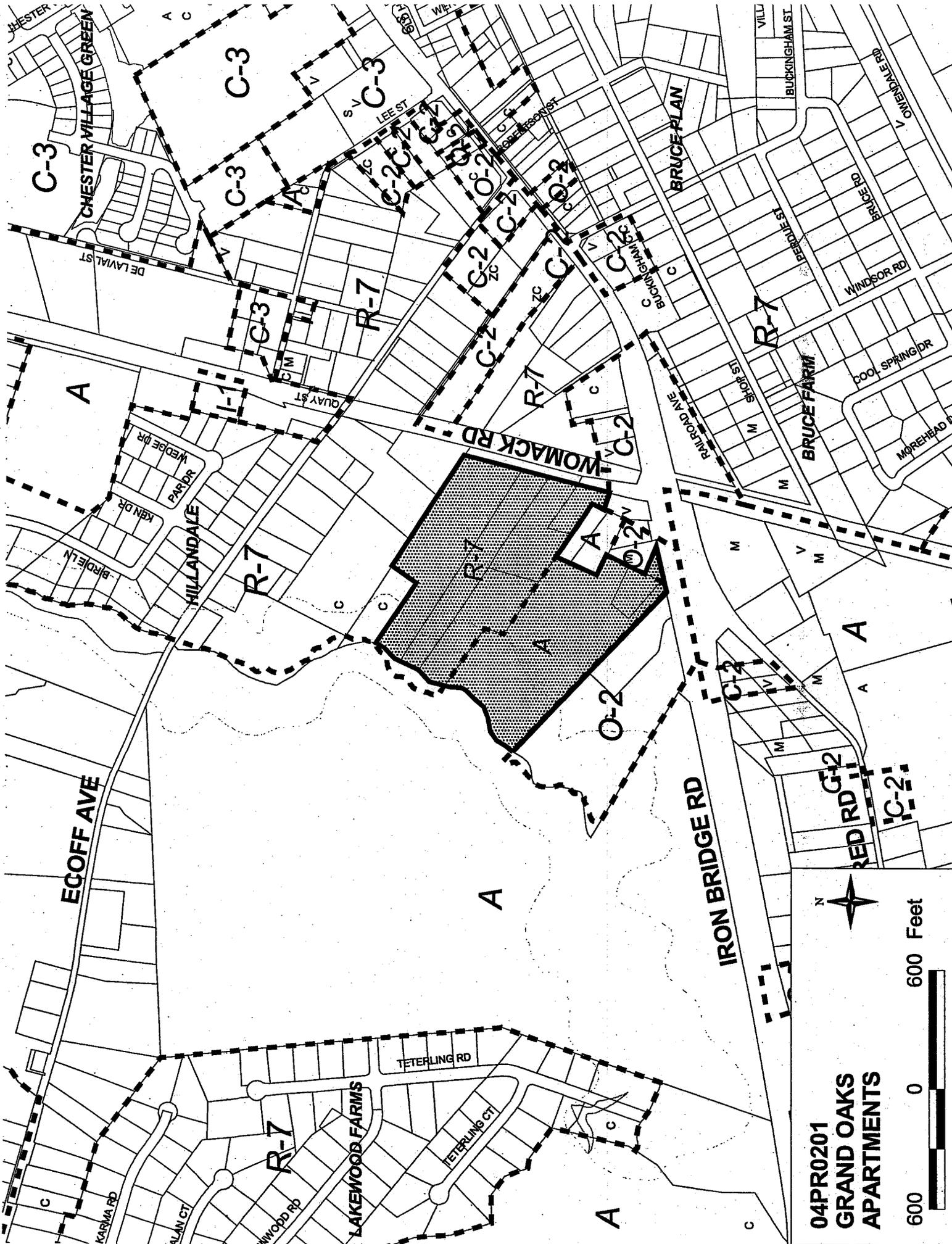
The text of the Proffered Conditions noted above are as follows:

1. Prior to any final site plan approval, one hundred (100) feet of right-of-way on the north side of Route 10, measured from the centerline of that part of Route 10 immediately adjacent to the property, shall be dedicated, free and unrestricted, to and for the benefit of Chesterfield County. (T)
- 4.d. Construction of adequate left turn lanes, as determined by the Transportation Department, at the existing crossovers on Route 10 located just east and west of the Womack Road Extended intersection. If approved by the Planning Commission, alternative road improvements may be substituted for the improvements identified in this part of the Proffered Condition. (T)
5. Prior to any site plan approval, a phasing plan for the required road improvements, as identified in Proffered Condition 4, shall be submitted to and approved by the Transportation Department. (T)
9. Prior to any site plan approval, an access easement, acceptable to the Planning and Transportation Departments, shall be recorded from Womack Road Extended, across the Property, to adjacent properties to the north. (P & T)
18. Site Plans shall be submitted to the Planning Commission for review and approval. (P)

The requested site plan will permit construction of 216 apartment units in one (1) and two (2) story buildings.

CONCLUSIONS

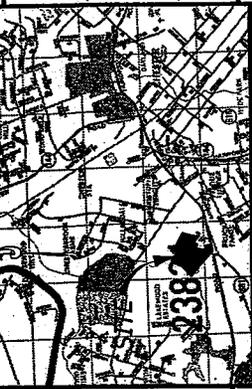
Review of this site plan by the Chesterfield County Planning Commission is required by Proffered Condition 18 of zoning Case 03SN0119. The site plan has been through two (2) complete reviews by the site plan review staff. The applicant has not yet fully complied with the requirements of Proffered Conditions 1, 4.d, 5 and 9 required for Planning Commission approval. Once these four (4) proffered conditions are addressed, staff can recommend approval of the site plan with one (1) condition to resubmit plans addressing the review comments. Since the requirements of Proffered Conditions 1, 4.d, 5 and 9 have not been complied with, staff recommends deferral.



04PR0201
**GRAND OAKS
 APARTMENTS**



THIS DRAWING PREPARED AT THE
 PRINCIPAL OFFICE AT 2815
 4250 CRENSHAW DR. #1000 RICHMOND, VA 23221
 TEL: 804.541.5500 FAX: 804.751.0798 WWW.TIMMONSGROUP.COM
 REVISION DESCRIPTION DATE
 12-15-2003
 REVISION PER COUNTY COMMENTS DATED 11-28-2003
 SITE DEVELOPMENT Residential Infrastructure Technology
 VIRGINIA | NORTH CAROLINA | WEST VIRGINIA



YOUR DESIGN APPROVED THROUGH OURS
 THIS DRAWING PREPARED AT THE
 PRINCIPAL OFFICE AT 2815
 4250 CRENSHAW DR. #1000 RICHMOND, VA 23221
 TEL: 804.541.5500 FAX: 804.751.0798 WWW.TIMMONSGROUP.COM
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GRAPHIC SCALE
1" = 100' 0" 0"

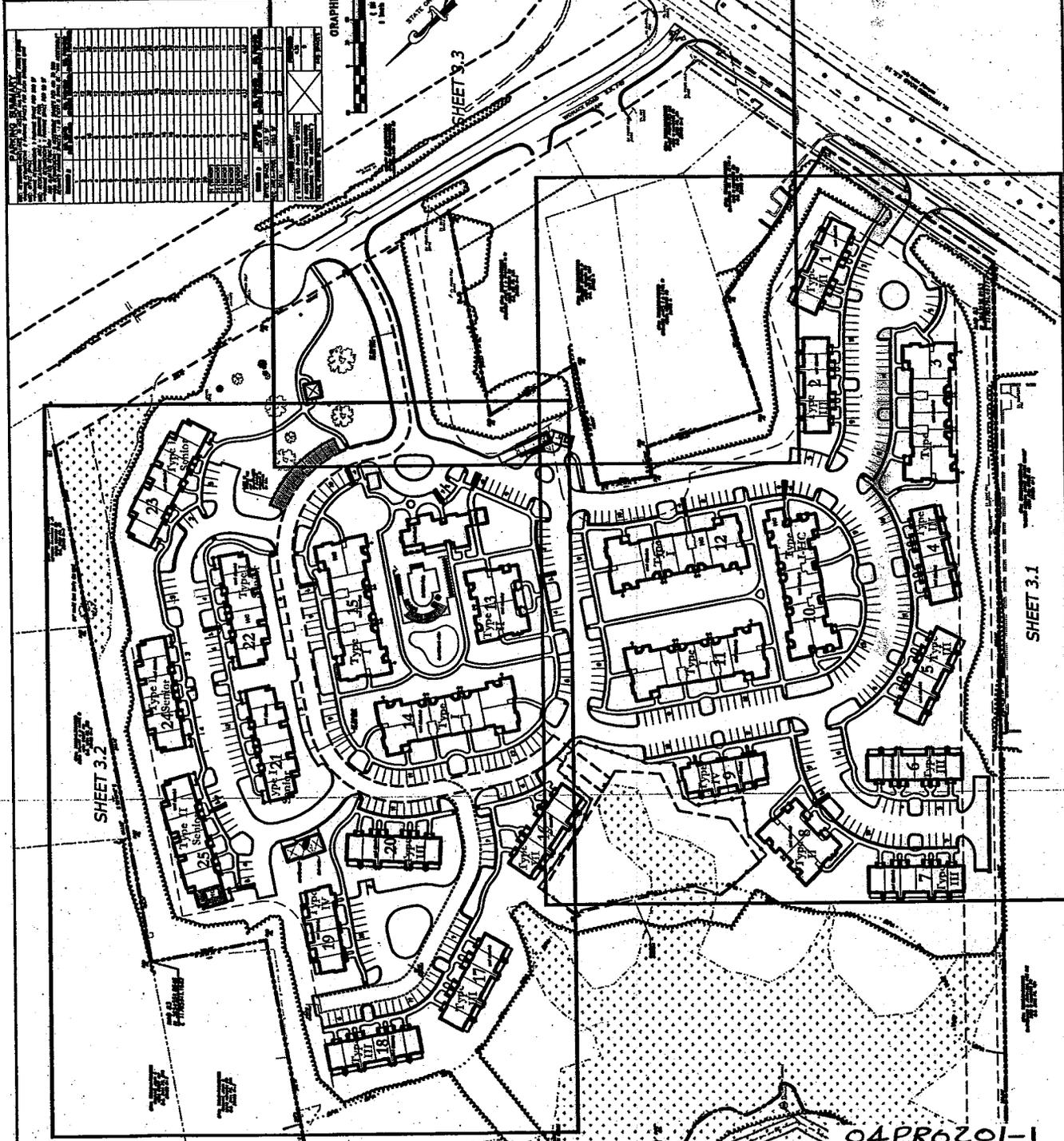
SHEET 3.3

GRAPHIC SCALE
1" = 100' 0" 0"

SHEET 3.1

04PR0201-1

COUNTY NOTES
 1. DEVELOPER: TIMMONS GROUP, L.L.C.
 2. DESIGN: TIMMONS GROUP, L.L.C.
 3. PERMITS: CHESTERFIELD COUNTY, VIRGINIA
 4. CONTRACTOR: [REDACTED]
 5. [REDACTED]
 6. [REDACTED]
 7. [REDACTED]
 8. [REDACTED]
 9. [REDACTED]
 10. [REDACTED]





DATE	28 OCT 2003
REVISION DESCRIPTION	
REVISION NO.	13-15-2003
REVISION DATE	11-26-2003
DATE	28 OCT 2003
PROJECT NO.	04PRO201-2
PROJECT NAME	NRP GROUP - GRAND OAKS APARTMENTS
PROJECT LOCATION	BERNADA DISTRICT - CHESTERFIELD COUNTY, VIRGINIA
PROJECT TYPE	Residential
PROJECT DESCRIPTION	Site Development
PROJECT OWNER	NRP GROUP
PROJECT ARCHITECT	Technology
PROJECT ENGINEER	Technology
PROJECT SURVEYOR	
PROJECT DRAFTER	
PROJECT CHECKER	
PROJECT APPROVER	
PROJECT REVIEWER	
PROJECT REVISIONS	

TIMMONS GROUP

YOUR VISION APPROVED THROUGH OAKS.

VIRGINIA | NORTH CAROLINA | WEST VIRGINIA

THE DRAINAGE ENGINEERS AT THE
 GEORGE GEORGE OFFICE
 4300 CHERRY BLVD | FLOOR 2000 | VA 23060
 TEL: 804.591.5500 FAX: 804.591.0798 WWW.TIMMONSGROUP.COM

GRADING AND DRAINAGE PLAN INDEX SHEET

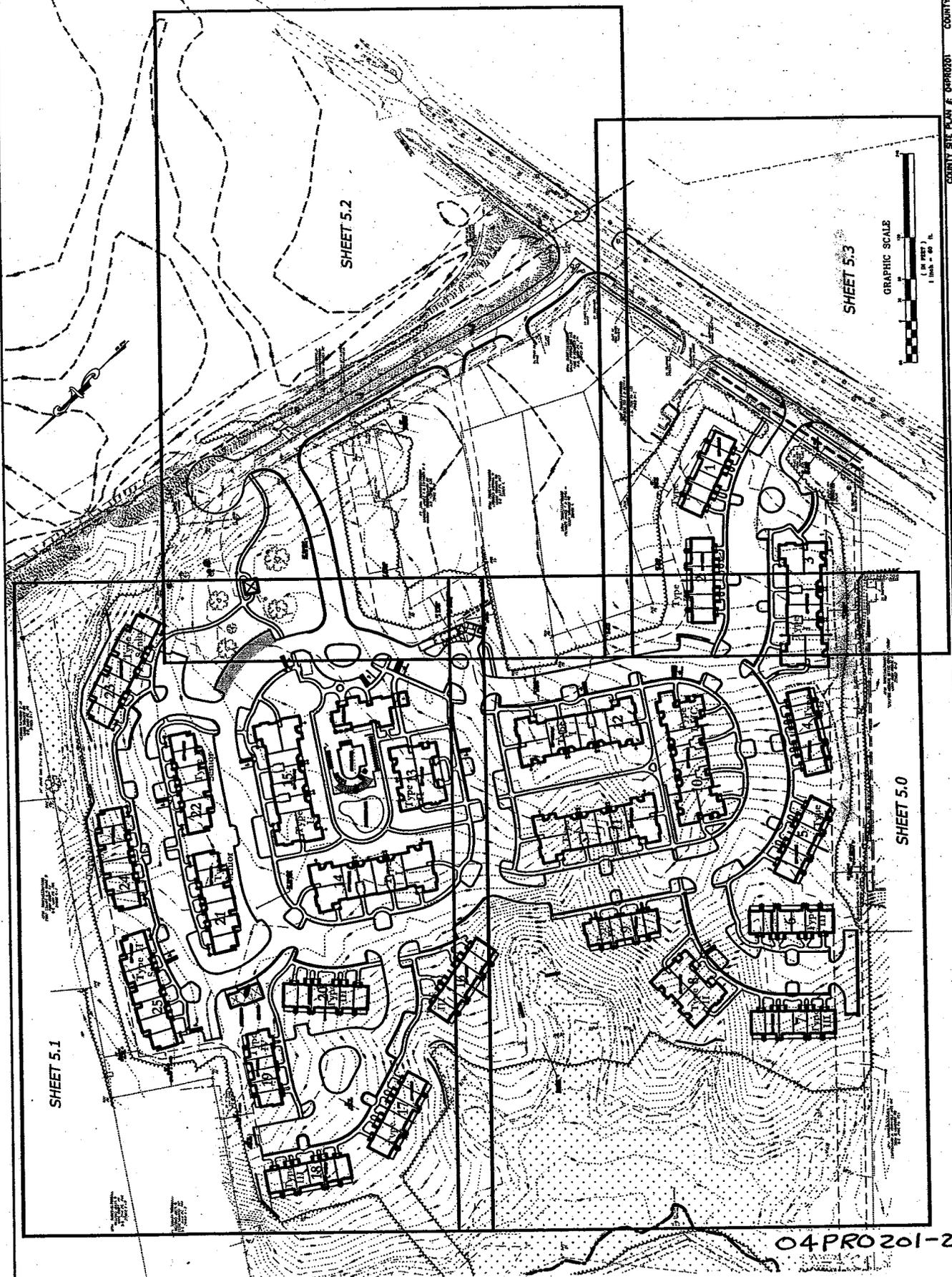
BERNADA DISTRICT - CHESTERFIELD COUNTY, VIRGINIA

PROJECT NO. 21369

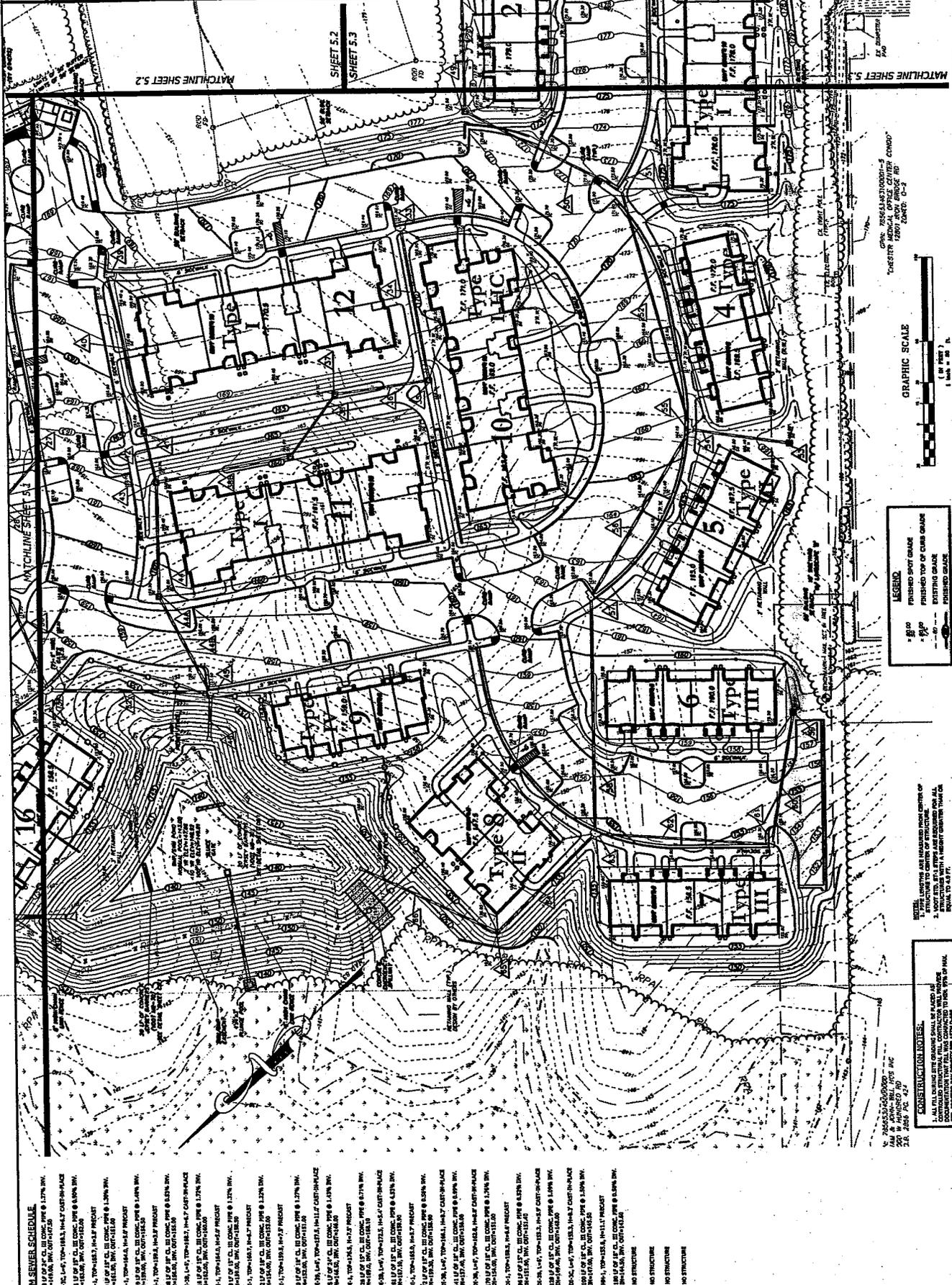
SCALE 1"=40'

COUNTY PROJECT # 02-002

COUNTY SITE PLAN # 04PRO201



04PRO201-2



STORM SEWER SCHEDULE

1	18" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
2	24" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
3	30" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
4	36" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
5	42" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
6	48" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
7	54" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
8	60" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
9	66" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
10	72" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
11	78" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
12	84" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
13	90" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
14	96" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
15	102" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
16	108" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
17	114" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
18	120" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
19	126" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
20	132" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
21	138" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
22	144" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
23	150" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
24	156" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
25	162" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
26	168" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
27	174" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
28	180" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
29	186" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
30	192" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
31	198" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
32	204" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
33	210" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
34	216" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
35	222" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
36	228" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
37	234" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
38	240" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
39	246" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
40	252" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
41	258" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
42	264" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
43	270" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
44	276" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
45	282" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
46	288" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
47	294" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
48	300" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
49	306" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
50	312" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
51	318" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
52	324" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
53	330" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
54	336" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
55	342" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
56	348" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
57	354" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
58	360" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
59	366" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
60	372" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
61	378" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
62	384" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
63	390" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
64	396" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
65	402" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
66	408" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
67	414" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
68	420" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
69	426" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
70	432" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
71	438" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
72	444" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
73	450" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
74	456" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
75	462" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
76	468" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
77	474" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
78	480" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
79	486" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
80	492" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
81	498" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
82	504" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
83	510" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
84	516" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
85	522" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
86	528" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
87	534" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
88	540" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
89	546" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
90	552" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
91	558" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
92	564" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
93	570" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
94	576" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
95	582" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
96	588" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
97	594" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
98	600" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
99	606" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.
100	612" UP OF 12" CL. 12" CONC. PIPE @ 1.27% SW.



DATE	28 OCT 2003
REVISION	1
PROJECT	RESIDENTIAL
CLIENT	RESIDENTIAL
SCALE	1" = 10'-0"
DRAWN BY	J. L. B. / G. G.
CHECKED BY	
DATE	11-15-2003
REVISION	REVISED PER COUNTY COMMENTS DATED 11-22-2003

NRP GROUP - GRAND OAKS APARTMENTS
 BETHLEHEM DISTRICT • CHESTERFIELD COUNTY, VIRGINIA

DATE: 11-15-2003
 DRAWING NO: 211369
 SHEET NO: 04-2

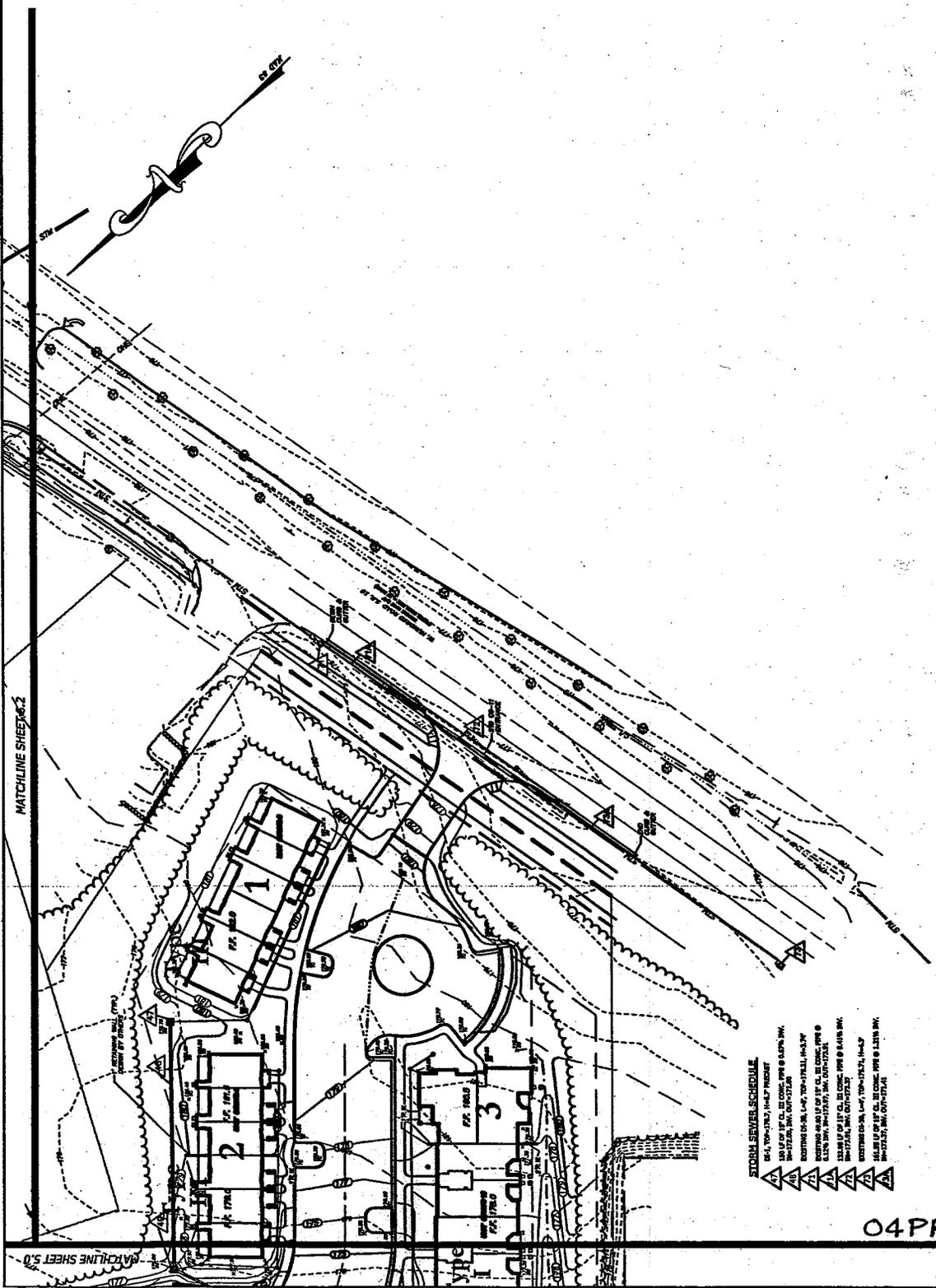
TIMMONS GROUP

THIS DRAWING PREPARED AT THE
 OFFICE OF TIMMONS GROUP, INC.
 4250 CHURCH ROAD I, FRENCH CREEK, VA 23025
 TEL: 804.541.6600 FAX: 804.751.0798 WWW.TIMMONSGROUP.COM

YOUR VISION ACHIEVED THROUGH OURS.

Site Development Residential Infrastructure Technology

NOTES:
 1. ALL DIMENSIONS ARE MEASURED FROM CENTER OF
 2. ALL DIMENSIONS TO CENTER OF STRUCTURE UNLESS
 3. STRUCTURES WITH A HEIGHT GREATER THAN 10'
 SHALL BE 10' FT.



- FORM SYMBOLS SCHEDULE**
- ▲ 6" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 8" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 10" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 12" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 14" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 16" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 18" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 20" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 22" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 24" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 26" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 28" x 12" CONC. PILE @ 10' ON CENTER
 - ▲ 30" x 12" CONC. PILE @ 10' ON CENTER

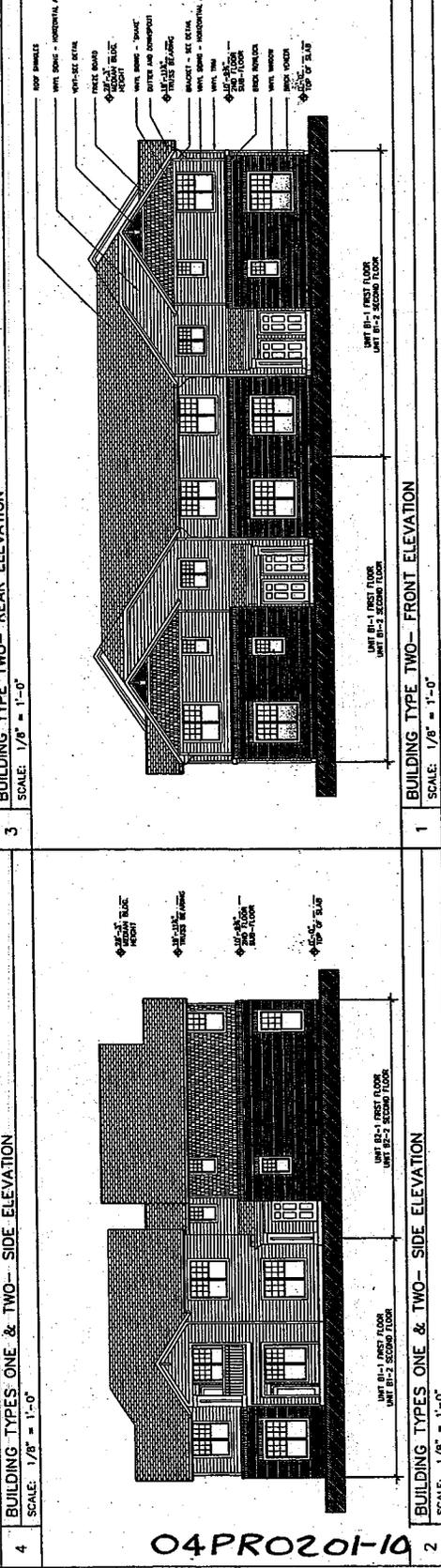
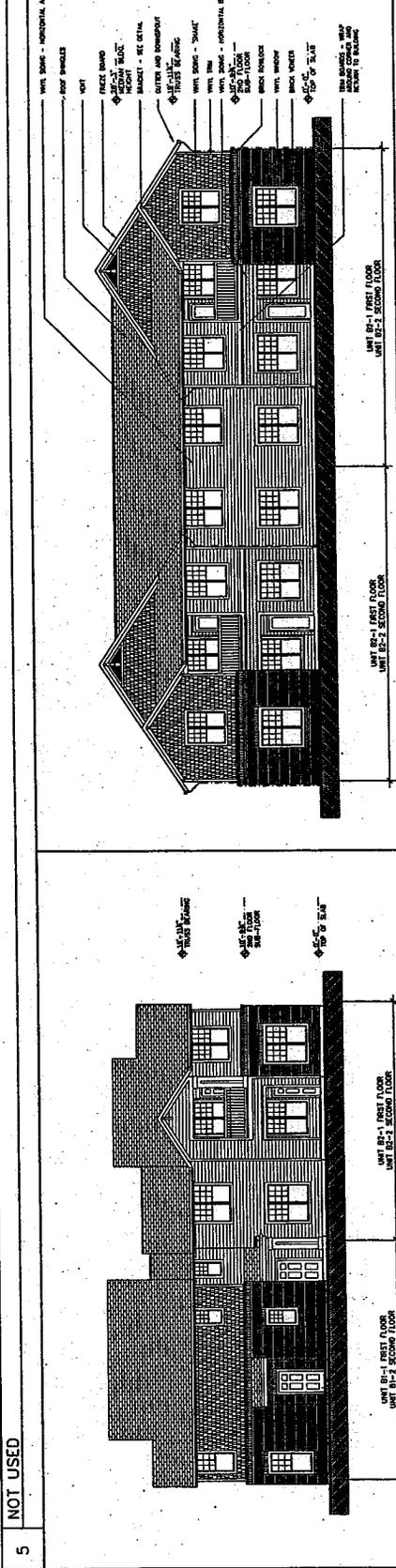
04PRO201-6

GENERAL NOTES - ELEVATIONS
1. CONCRETE SHALL BE FINISHED WITH THE FINISH SPECIFIED IN THE SCHEDULE.
2. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
3. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
4. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
5. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
6. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
7. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
8. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
9. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.
10. ALL FINISHES SHALL BE SHOWN IN THE SCHEDULE.

TYPICAL DETAILS - ELEVATIONS
1. ROOF: [Detail]
2. WALL: [Detail]
3. WINDOW: [Detail]
4. DOOR: [Detail]
5. FINISH: [Detail]

COLOR SCHEDULE
1. [Color Name]
2. [Color Name]
3. [Color Name]
4. [Color Name]
5. [Color Name]
6. [Color Name]
7. [Color Name]
8. [Color Name]
9. [Color Name]
10. [Color Name]

5 NOT USED



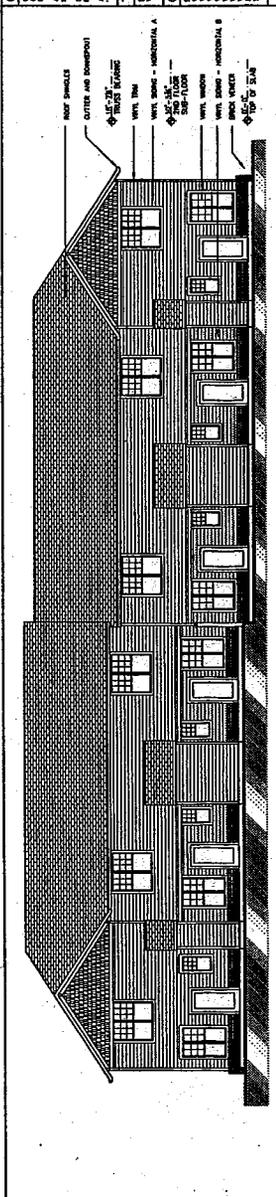
04PRO201-10

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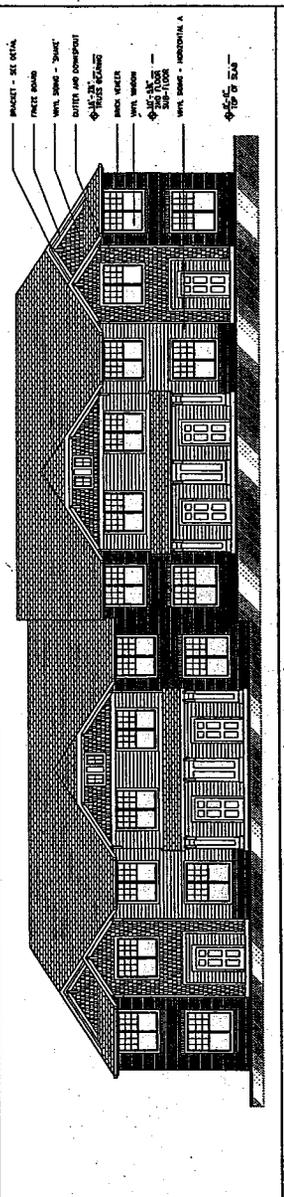
GENERAL NOTES - ELEVATIONS
1. CONSTRUCTION SHALL BE IN ACCORD WITH THE PROJECT'S CONTRACT DOCUMENTS.
2. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
3. FINISHES SHALL BE AS NOTED ON THE PROJECT'S CONTRACT DOCUMENTS.
4. MATERIALS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
5. ALL WORK SHALL BE IN ACCORD WITH THE PROJECT'S CONTRACT DOCUMENTS.
6. ALL WORK SHALL BE IN ACCORD WITH THE PROJECT'S CONTRACT DOCUMENTS.
7. ALL WORK SHALL BE IN ACCORD WITH THE PROJECT'S CONTRACT DOCUMENTS.

TYPICAL DETAILS - ELEVATIONS
ROOF FINISHES
ROOF GUTTER AND DOWNSPOUT
ROOF FLASHING
ROOF TRIM
WALL, SILL - HORIZONTAL A
WALL, SILL - VERTICAL B
SIP-FLOOR
WALL, WINDOW
WALL, DOOR - HORIZONTAL A
WALL, DOOR - VERTICAL B
BRICK VENT
TOP OF FINISH

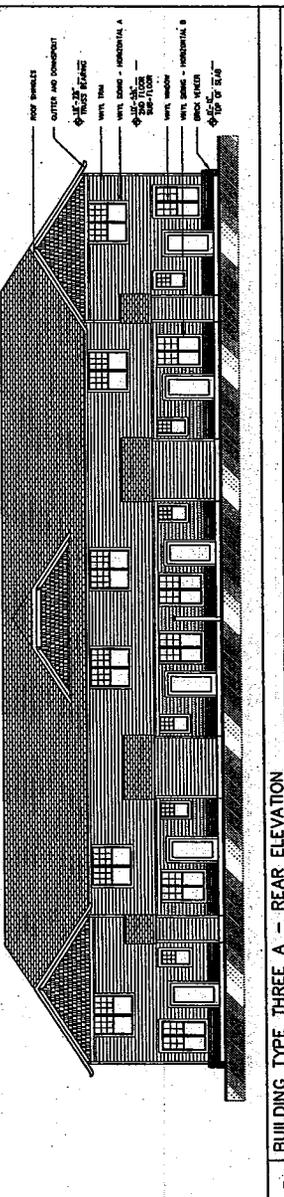
COLOR SCHEDULE
BY ARCHITECT
NAME
COLOR
BY ARCHITECT
NAME
COLOR



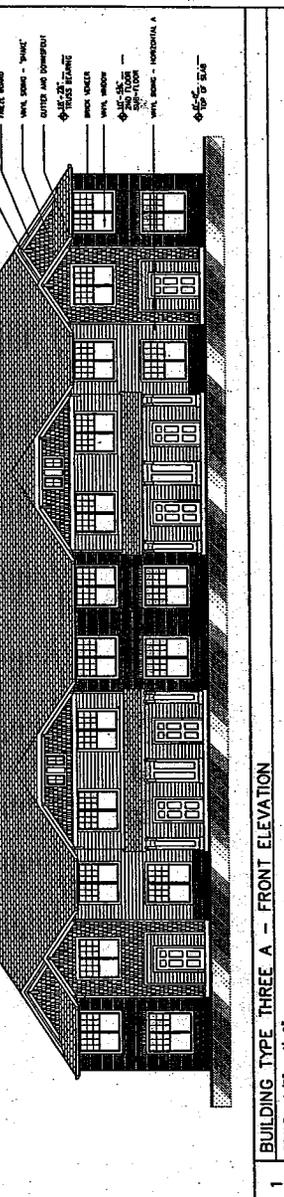
7 BUILDING TYPE THREE A - REAR ELEVATION (STEPPED)
SCALE: 1/8" = 1'-0"



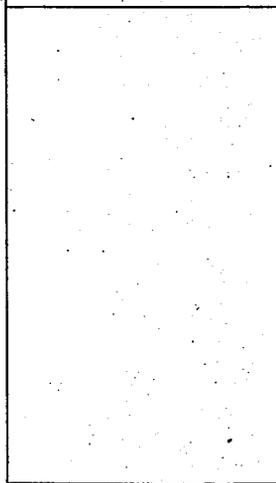
5 BUILDING TYPE THREE A - FRONT ELEVATION (STEPPED)
SCALE: 1/8" = 1'-0"



3 BUILDING TYPE THREE A - REAR ELEVATION
SCALE: 1/8" = 1'-0"



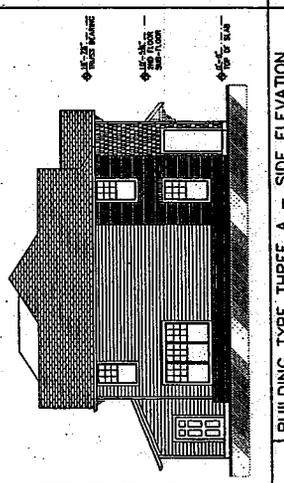
1 BUILDING TYPE THREE A - FRONT ELEVATION
SCALE: 1/8" = 1'-0"



6 NOT USED
SCALE: 1/8" = 1'-0"



4 BUILDING TYPE THREE A - SIDE ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE THREE A - SIDE ELEVATION
SCALE: 1/8" = 1'-0"



04PRO201-11



125 N. Harrison St.
Raleigh, NC 27603
919/833-8413
919/838-1280 FAX
Cda@designpartners.com

the **NRP** Group LLC
GRAND OAKS
CHESTER, VIRGINIA

Project: 02125
Date: 11.19.01
Revised: 12.15.03 - PLANNING REVIEW
Drawn By: JRV
Checked By: _____
Content: BUILDING TYPE FOUR - ELEVATIONS

Sheet **A2.05**

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GENERAL NOTES - ELEVATIONS
 1. GENERAL CONSTRUCTION DETAILS SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
 2. ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF 4" ABOVE THE FINISHED GRADE.
 3. ALL EXTERIOR WOOD TRIM TO BE SHAPED IN ACCORDANCE WITH THE FINISH SCHEDULE.
 4. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 5. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 6. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 7. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 8. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 9. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.
 10. FINISH SCHEDULE SHALL BE SHOWN ON THE ARCHITECTURAL DRAWINGS.

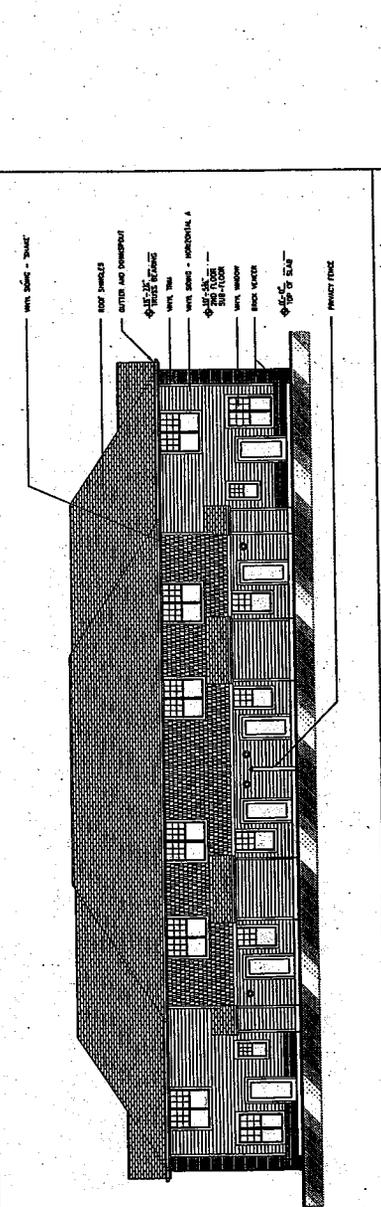
TYPICAL DETAILS - ELEVATIONS

WALL	1/2" / 1/2" / 1/2"
ROOF	1/2" / 1/2" / 1/2"
TRIM	1/2" / 1/2" / 1/2"

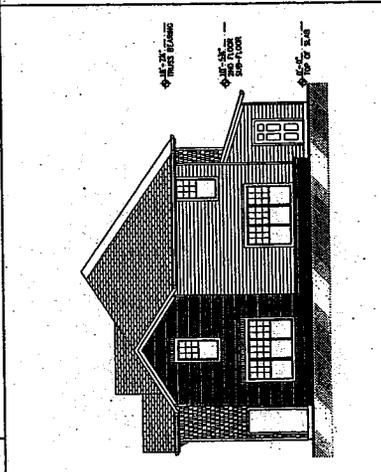
COLOR SCHEDULE

WALL	BRICK
TRIM	BRICK
ROOF	BRICK
WALL	BRICK
TRIM	BRICK
ROOF	BRICK

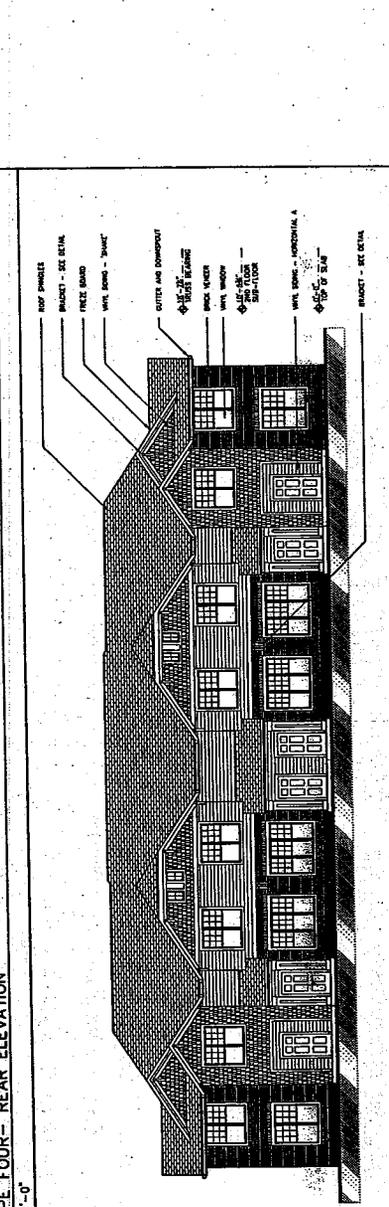
5 NOT USED



3 BUILDING TYPE FOUR - REAR ELEVATION
SCALE: 1/8" = 1'-0"



4 BUILDING TYPE FOUR - RIGHT SIDE ELEVATION
SCALE: 1/8" = 1'-0"



1 BUILDING TYPE FOUR - FRONT ELEVATION
SCALE: 1/8" = 1'-0"

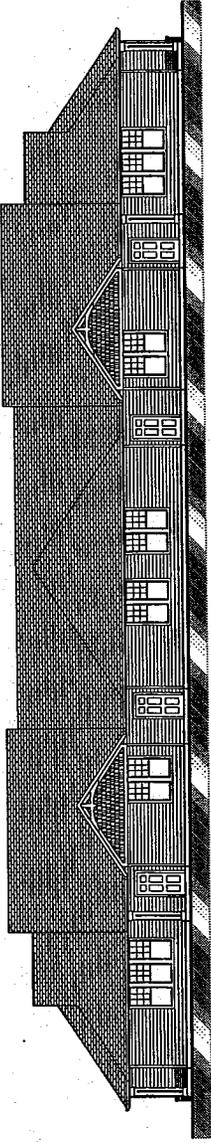


2 BUILDING TYPE FOUR - LEFT SIDE ELEVATION
SCALE: 1/8" = 1'-0"

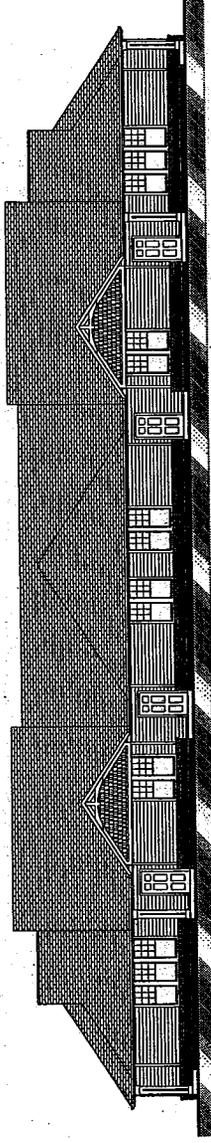
04PRO201-13

GENERAL NOTES - ELEVATIONS
1. CONCRETE SHALL BE FINISHED WITH A CONCRETE FINISH SUCH AS POLISHED OR STAINED CONCRETE.
2. ALL FINISHES SHALL BE TO MATCH THE FINISHES SHOWN ON THE ARCHITECTURAL DRAWINGS.
3. GRADE SHALL BE SLOPED AWAY FROM BUILDING FOR POSITIVE DRAINAGE.
4. ALL MATERIALS SHALL BE APPROVED BY THE ARCHITECT.
5. ALL MATERIALS SHALL BE SHOWN IN THE MATERIAL SCHEDULE.

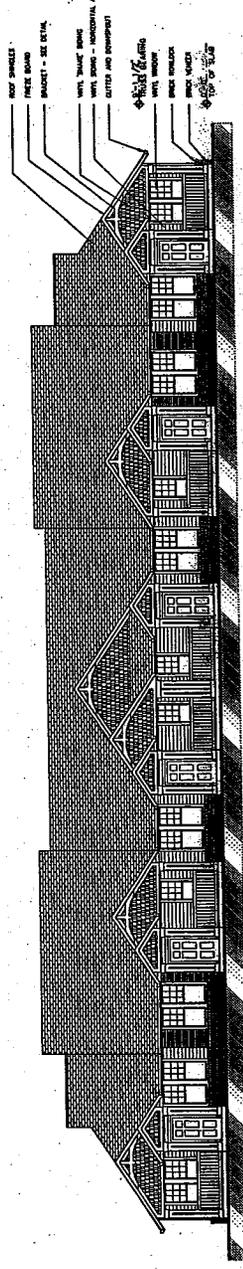
TYPICAL DETAILS - ELEVATIONS
FINISH: _____
TYPE: _____



3 BUILDING TYPE FIVE B -- REAR ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE FIVE A -- REAR ELEVATION
SCALE: 1/8" = 1'-0"



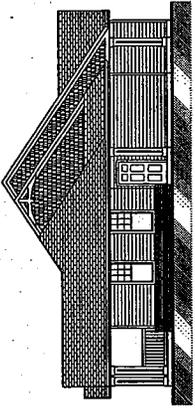
1 BUILDING TYPE FIVE -- FRONT ELEVATION
SCALE: 1/8" = 1'-0"

04PR0261-14

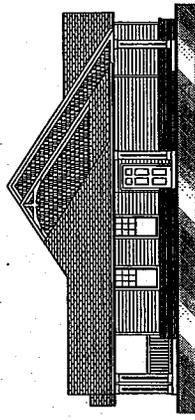
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GENERAL NOTES - ELEVATIONS
COORDINATE ELEVATIONS WITH THE PROJECT'S ARCHITECTURAL ELEVATIONS.
ALL DIMENSIONS UNLESS OTHERWISE NOTED.
ALL MATERIALS AND FINISHES SHALL BE AS SHOWN ON THE PROJECT'S ARCHITECTURAL ELEVATIONS.
ALL MATERIALS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
ALL MATERIALS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
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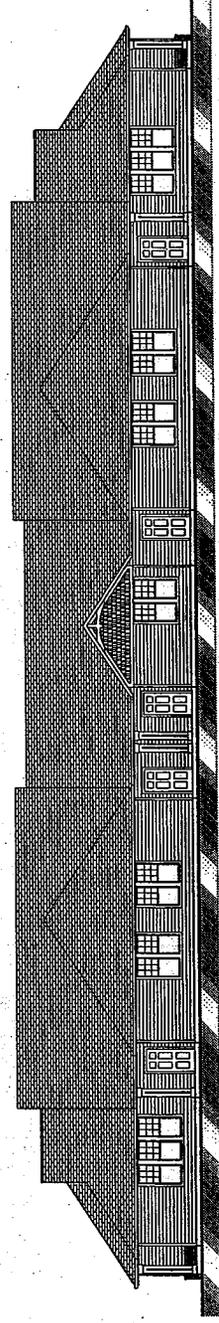
TYPICAL DETAILS - ELEVATIONS
SHEET 02 / 04-02
DATE 02/15/03



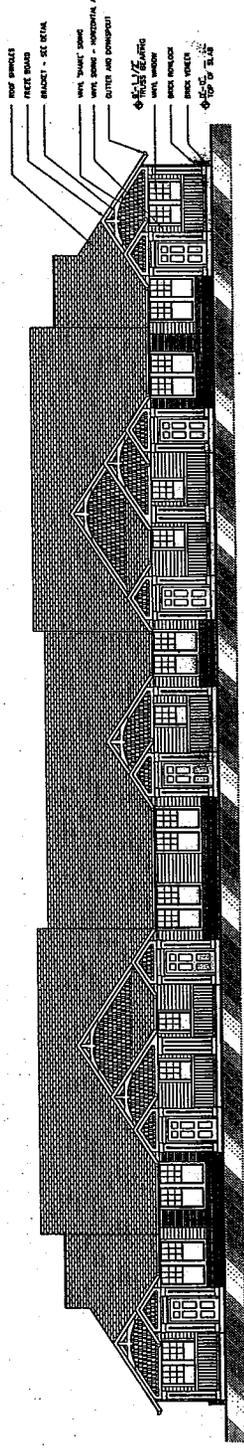
3 BUILDING TYPES FIVE B & SIX - SIDE ELEVATION
SCALE: 1/8" = 1'-0"



4 BUILDING TYPES FIVE A - SIDE ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE SIX - REAR ELEVATION
SCALE: 1/8" = 1'-0"



1 BUILDING TYPE SIX - FRONT ELEVATION
SCALE: 1/8" = 1'-0"

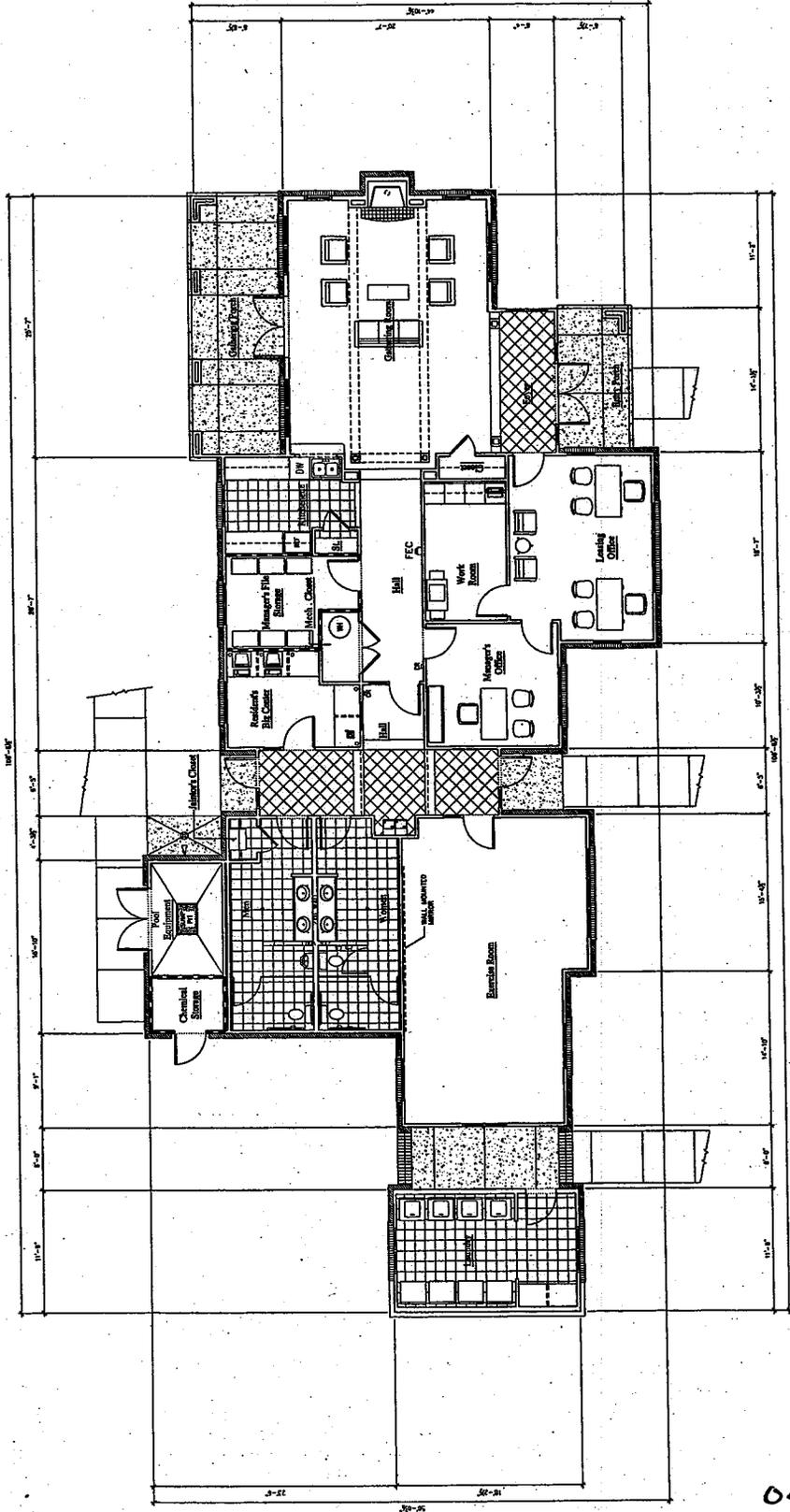
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<p>12 MAIN KIOSK - ELEVATION SCALE: 1/8" = 1'-0"</p>	<p>11 MAIL KIOSK - ELEVATION SCALE: 1/8" = 1'-0"</p>	<p>6 ELEVATION SCALE: 1/8" = 1'-0"</p>	<p>5 MAINTENANCE / CAR WASH - ELEVATION SCALE: 1/8" = 1'-0"</p>
<p>9 MAIL KIOSK - ROOF PLAN SCALE: 1/8" = 1'-0"</p>	<p>10 MAIL KIOSK - FLOOR PLAN SCALE: 1/8" = 1'-0"</p>	<p>1 MAINTENANCE / CAR WASH - ROOF PLAN SCALE: 1/8" = 1'-0"</p>	<p>1 MAINTENANCE / CAR WASH - FLOOR PLAN SCALE: 1/8" = 1'-0"</p>

04PR0201-16

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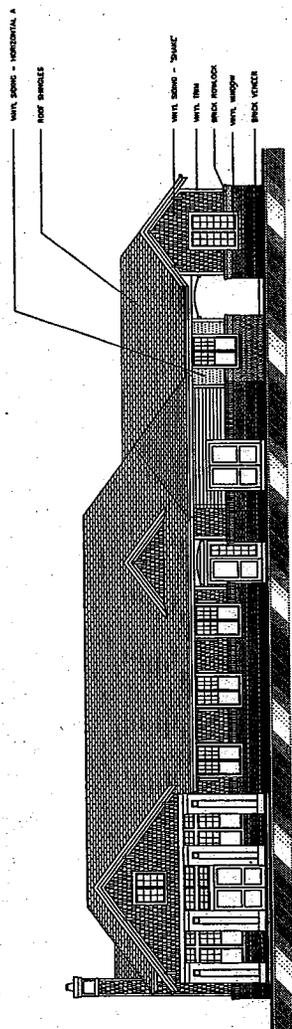
04PR0261-17

1 CLUBHOUSE - FIRST FLOOR
SCALE: 3/16" = 1'-0"

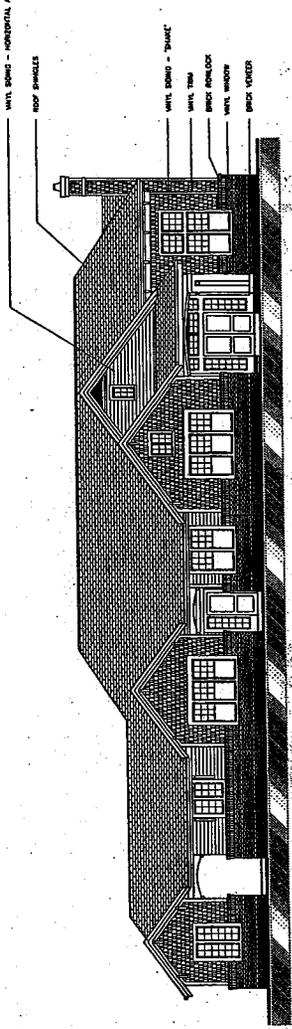
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GENERAL NOTES - ELEVATIONS
1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
2. FINISHES AND MATERIALS SHALL BE AS SHOWN ON THE SCHEDULE.
3. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
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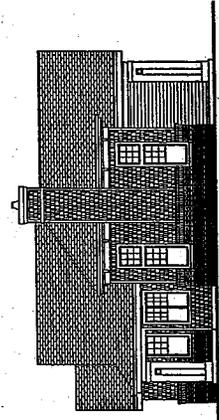
TYPICAL DETAILS - ELEVATIONS
1. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
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10. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.



3 CLUBHOUSE - REAR ELEVATION
SCALE: 1/8" = 1'-0"



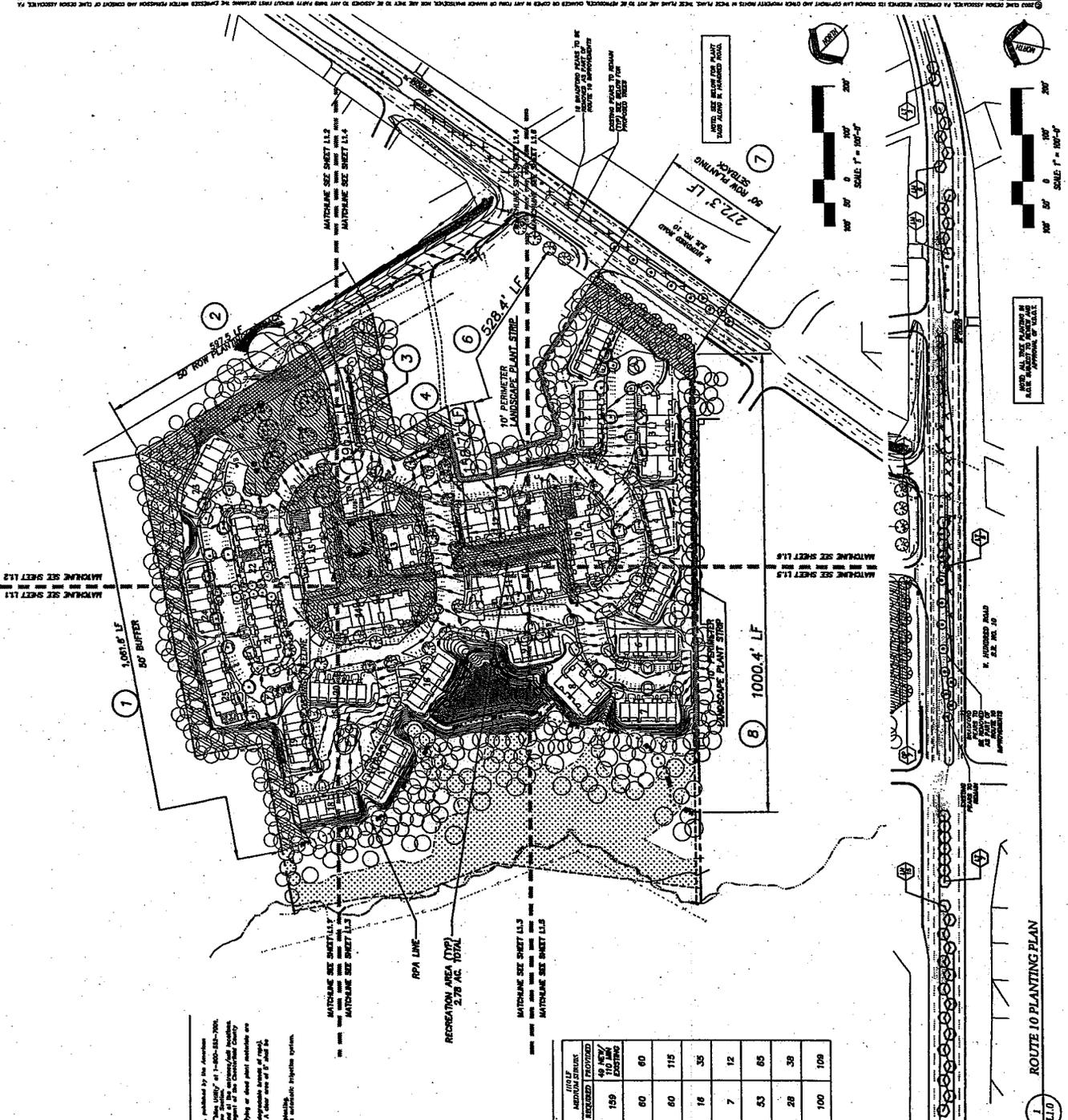
1 CLUBHOUSE - FRONT ELEVATION
SCALE: 1/8" = 1'-0"



2 CLUBHOUSE - SIDE ELEVATION
SCALE: 1/8" = 1'-0"

4 NOT USED
SCALE: 1/8" = 1'-0"

04PRO201-18



LANDSCAPE NOTES

1. All plantings are to comply with the latest edition of American standards for nursery stock, published by the American Association of Nurserymen, Inc.
2. The contractor shall coordinate with the City of Chester regarding the proposed landscape plan. The contractor shall provide a copy of the landscape plan to the City of Chester for review and approval.
3. The contractor shall provide a copy of the landscape plan to the City of Chester for review and approval.
4. The contractor shall provide a copy of the landscape plan to the City of Chester for review and approval.
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9. The contractor shall provide a copy of the landscape plan to the City of Chester for review and approval.
10. The contractor shall provide a copy of the landscape plan to the City of Chester for review and approval.

SURFACE PARKING AREA LANDSCAPE CALCULATION

REQUIRED EXISTING LANDSCAPING	400 PARKING SPACES @ 30 SQ. EACH = 12,000 SQ. FT.
REQUIRED EXISTING LANDSCAPING	35,000 SQ. FT.
REQUIRED TREE PLANTING	43 TREES
PROPOSED TREELANDSCAPING	103 TREES

PERIMETER LANDSCAPE CALCULATIONS

AREA	LARGE DECIDUOUS TREES		MEDIUM TREES		SMALL DECIDUOUS TREES		MEDIUM STRUCCS	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
1. 100' LF (10' BUFFER)	32	0	53	0	53	0	150	0
2. 50' LF (5' BUFFER)	12	0	20	0	20	0	60	0
3. 10' PERIMETER LANDSCAPE PLANT STRIP	12	0	20	0	20	0	60	115
4. 10' PERIMETER LANDSCAPE PLANT STRIP	4	0	6	0	6	0	16	35
5. 10' PERIMETER LANDSCAPE PLANT STRIP	2	0	3	0	3	0	7	12
6. 10' PERIMETER LANDSCAPE PLANT STRIP	11	0	18	0	18	0	53	65
7. 10' PERIMETER LANDSCAPE PLANT STRIP	6	7	9	0	9	0	28	38
8. 10' PERIMETER LANDSCAPE PLANT STRIP	20	0	34	0	34	0	100	108

MATCHLINE-SEE SHEET L1.2

LEGEND

	SLOPE REVEGETATION MIX
	EXISTING TREE PRESERVATION
	WETLAND PRESERVE AREA

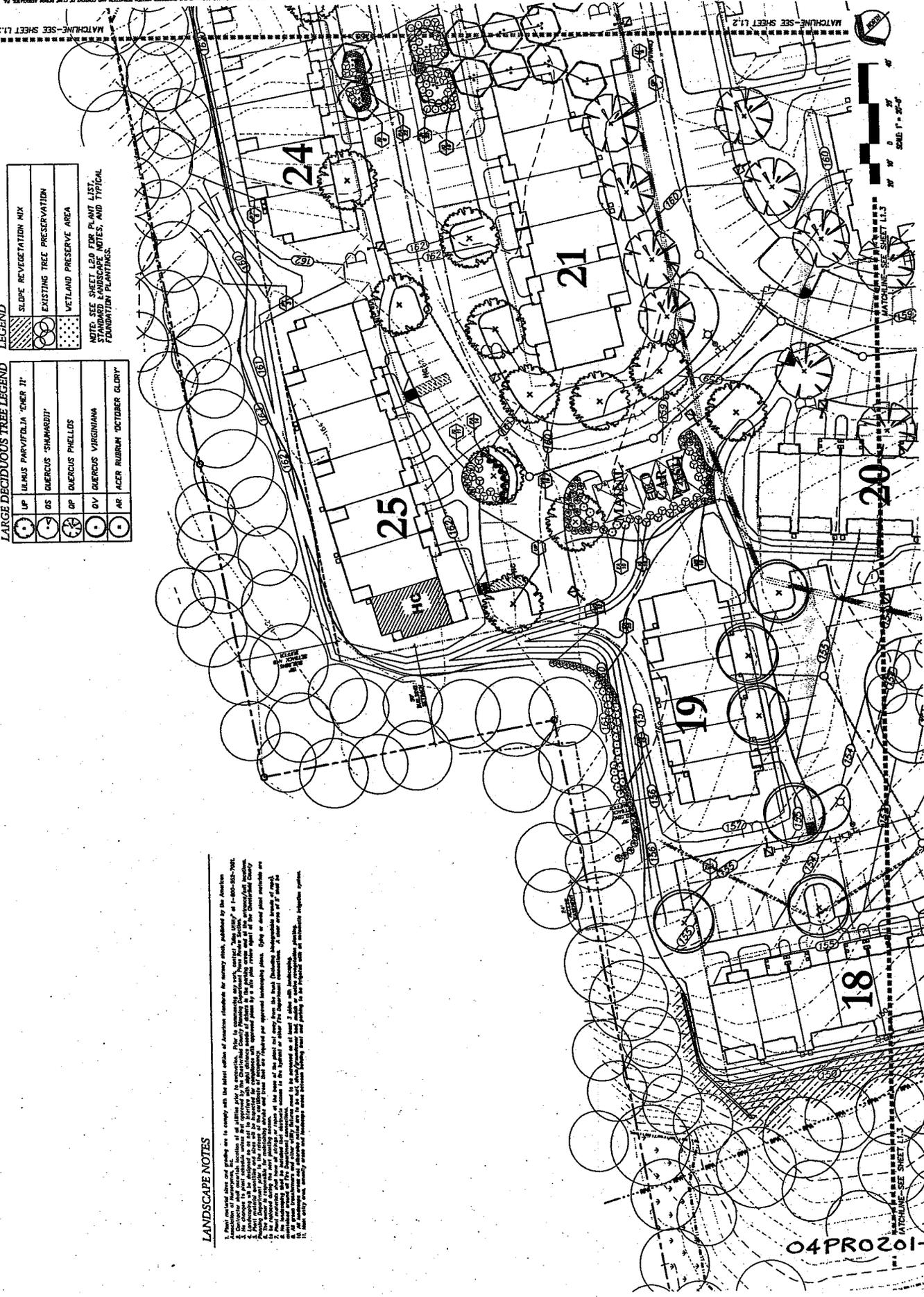
NOTE: SEE SHEET L2.0 FOR PLANT LIST, STANDARD LANDSCAPE NOTES, AND TYPICAL FOUNDATION PLANTINGS.

LARGE DECIDUOUS TREE LEGEND

	LP	ULMUS PARVIFOLIA 'CERIF II'
	QS	QUERCUS 'SHARRODII'
	QP	QUERCUS PHELLOIS
	QV	QUERCUS VIRGINIANA
	AR	ACER RUBRUM 'OCTOBER GLORY'

LANDSCAPE NOTES

1. Plant material shown and grades are to comply with the latest edition of American standards for nursery stock, published by the American Society of Horticultural Science.
2. Contractor shall establish location of all utilities prior to excavation. Plan to accommodate any work required, being 1500' at 1-800-552-7001.
3. All construction shall be designed to not be disturbed with each address shown of plans in the project name and at the Chesapeake County Planning Department office in the presence of the architect or approved subcontractor. Copy or send final schedule on to the appropriate utility for approval.
4. The landscape plan shall be approved by the Planning and Zoning Department. A note area of 2' shall be provided for the approval of the Planning Department.
5. The landscape plan shall be approved by the Planning and Zoning Department.
6. The landscape plan shall be approved by the Planning and Zoning Department.
7. The landscape plan shall be approved by the Planning and Zoning Department.
8. The landscape plan shall be approved by the Planning and Zoning Department.
9. The landscape plan shall be approved by the Planning and Zoning Department.
10. The landscape plan shall be approved by the Planning and Zoning Department.
11. The landscape plan shall be approved by the Planning and Zoning Department.
12. The landscape plan shall be approved by the Planning and Zoning Department.



04PR0201-20

LEGEND

	SLOPE REVEGETATION MIX
	EXISTING TREE PRESERVATION
	WETLAND PRESERVE AREA

NOTE: SEE SHEET L20 FOR PLANT LIST, STANDARD LANDSCAPE NOTES, AND TYPICAL FOUNDATION PLANTINGS.

LARGE DECIDUOUS TREE LEGEND

	ULMUS PARVIFOLIA 'EMER II'
	QUERCUS 'SHUMARDII'
	QUERCUS PHELLOS
	QUERCUS VIRGINIANA
	ACER RUBRUM 'OCTOBER GLORY'

LANDSCAPE NOTES

1. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

2. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

3. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

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5. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

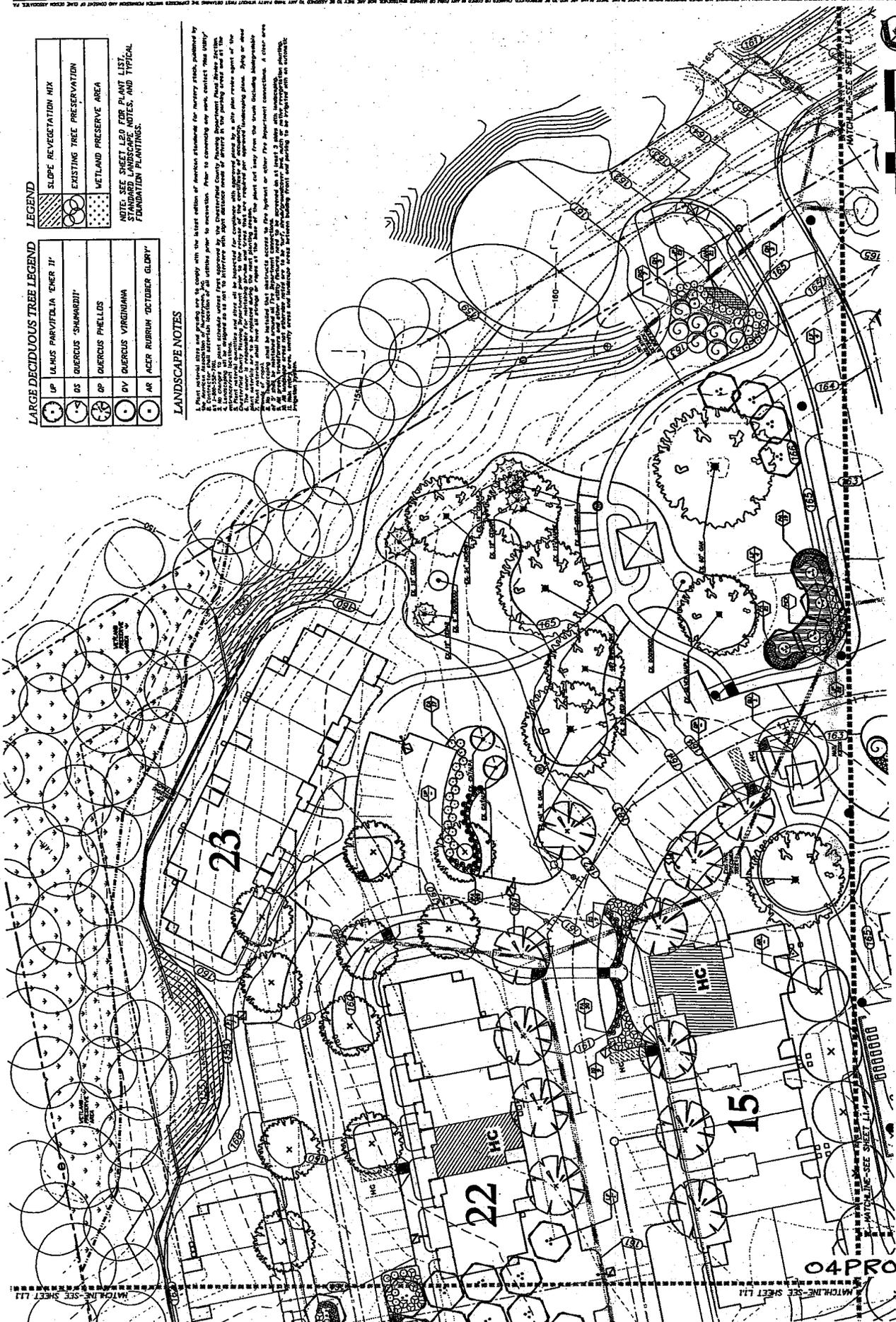
6. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

7. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

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9. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).

10. All trees to be planted shall be supplied with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Council, Inc. (ANFC).



04PR0201-21

CDA
 CLIMATE DESIGN
 ARCHITECTURE

125 N. Harrison St.
 Raleigh, NC 27601
 919/233-1230 FAX
 cda@climatedesign.com

NOT FOR CONSTRUCTION

the **NRP** group ll

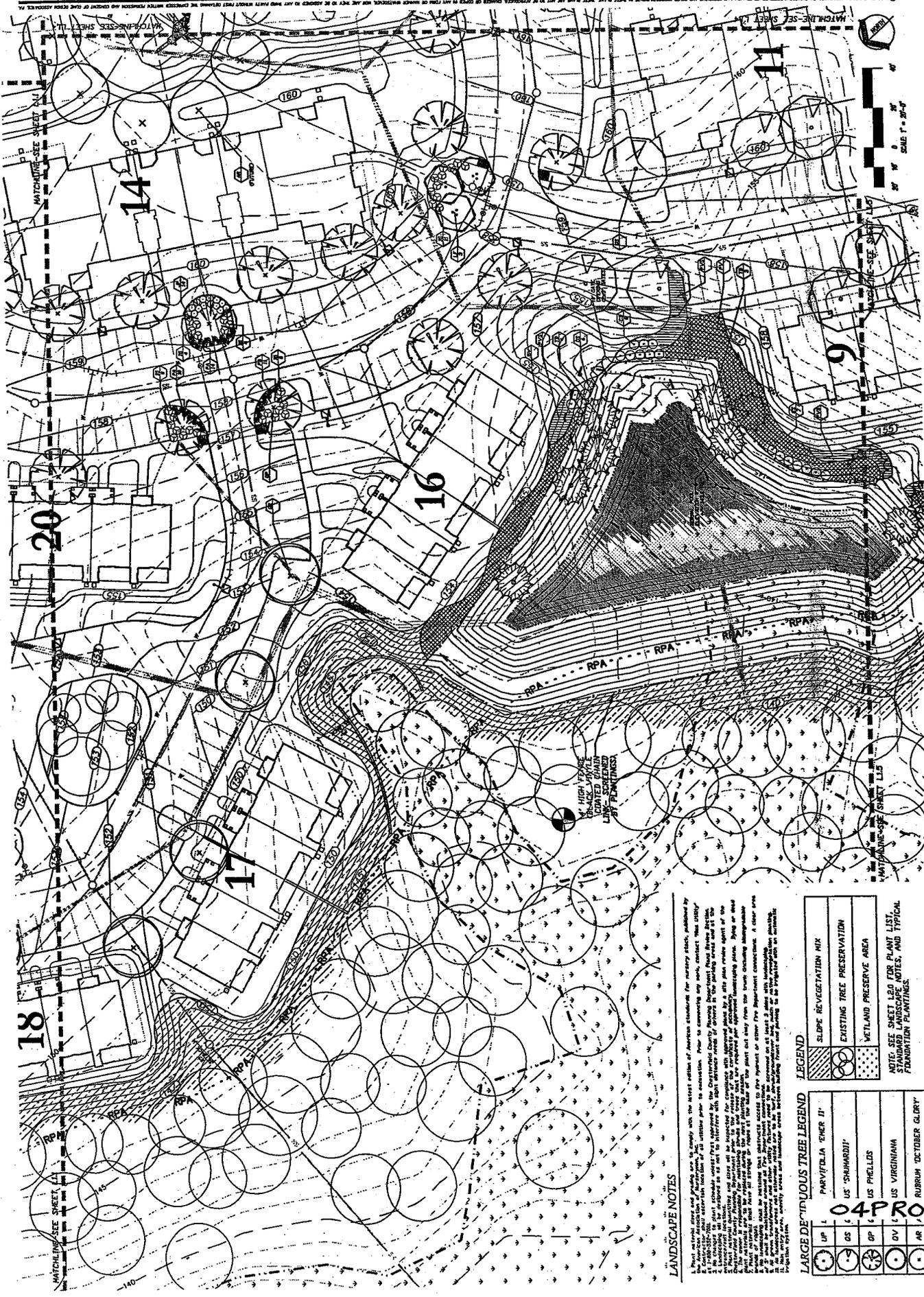
Grand Oaks

Chester, Virginia
 T.L. NDD, CLM

SITE PLAN SUBMITTAL
 Project: 01126
 Date: 10.27.03
 Revision: 12.15.03

Drawn By: SP/EB/SF
 Checked By: MW/JC
 Content: PLANTING PLAN

Sheet **L13**



LANDSCAPE NOTES

1. All trees and shrubs to be planted in accordance with the latest edition of American Standard for Nursery Stock, published by the American Nursery and Floriculture Society. No utility poles to be constructed. Prior to commencing any work, contact the utility companies to determine the location of all utility lines. No utility poles to be constructed. Prior to commencing any work, contact the utility companies to determine the location of all utility lines. No utility poles to be constructed. Prior to commencing any work, contact the utility companies to determine the location of all utility lines.

LEGEND

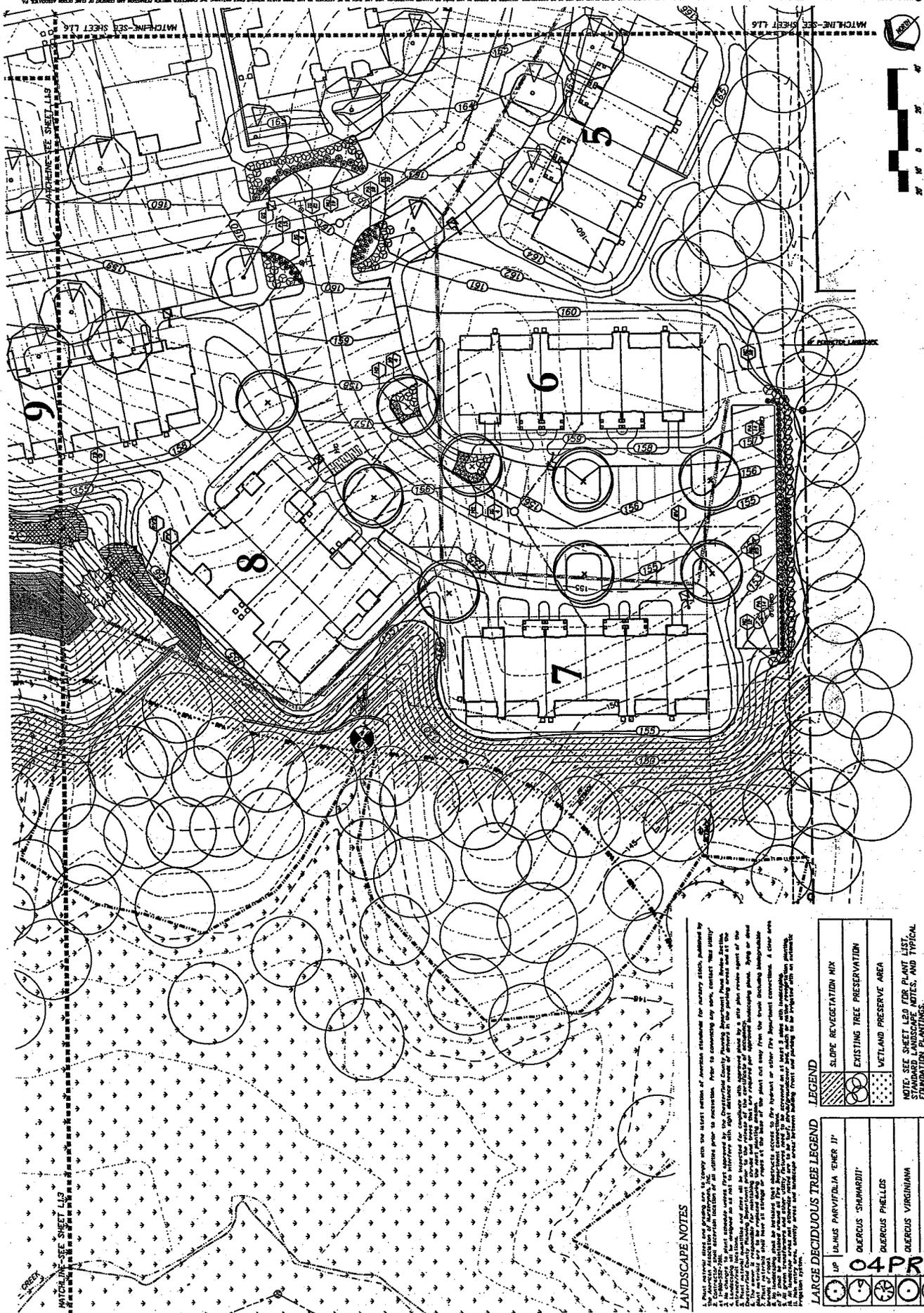
	SLOPE REVEGETATION MIX
	EXISTING TREE PRESERVATION
	WETLAND PRESERVE AREA

NOTE: SEE SHEET L10 FOR PLANT LIST, TREE SPECIES, AND TYPICAL FOUNDATION PLANTINGS.

LARGE DEPENDENT TREE LEGEND

	PARVIFOLIA 'EMER II'
	US 'SHIRAHODII'
	US PHELLIDS
	US VIRGINIANA
	RUBRUM 'OCTOBER GLORY'

04PRO201-2



LANDSCAPE NOTES

1. The site plan and planting list comply with the latest edition of American standards for nursery stock, published by the American Nursery and Floriculture Society, Inc. unless noted otherwise. Prior to commencing any work, contact your local nursery for the most current standards. All plants shall be delivered to the site in accordance with the standards of the American Nursery and Floriculture Society, Inc. unless noted otherwise.

2. All plants shall be delivered to the site in accordance with the standards of the American Nursery and Floriculture Society, Inc. unless noted otherwise. All plants shall be delivered to the site in accordance with the standards of the American Nursery and Floriculture Society, Inc. unless noted otherwise.

3. All plants shall be delivered to the site in accordance with the standards of the American Nursery and Floriculture Society, Inc. unless noted otherwise. All plants shall be delivered to the site in accordance with the standards of the American Nursery and Floriculture Society, Inc. unless noted otherwise.

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LEGEND

	SLOPE REVEGETATION MIX
	EXISTING TREE PRESERVATION
	WETLAND PRESERVE AREA

LARGE DECIDUOUS TREE LEGEND

	ULMUS PARVIFOLIA 'EMER II'
	QUERCUS SHUMARDII
	QUERCUS PHELLOS
	QUERCUS VIRGINIANA
	ACER RUBRUM 'OCTOBER GLORY'

NOTE: SEE SHEET L1.0 FOR PLANT LIST, SPECIFIED LANDSCAPE NOTES, AND TYPICAL FOUNDATION PLANTINGS.

04PRO201-2

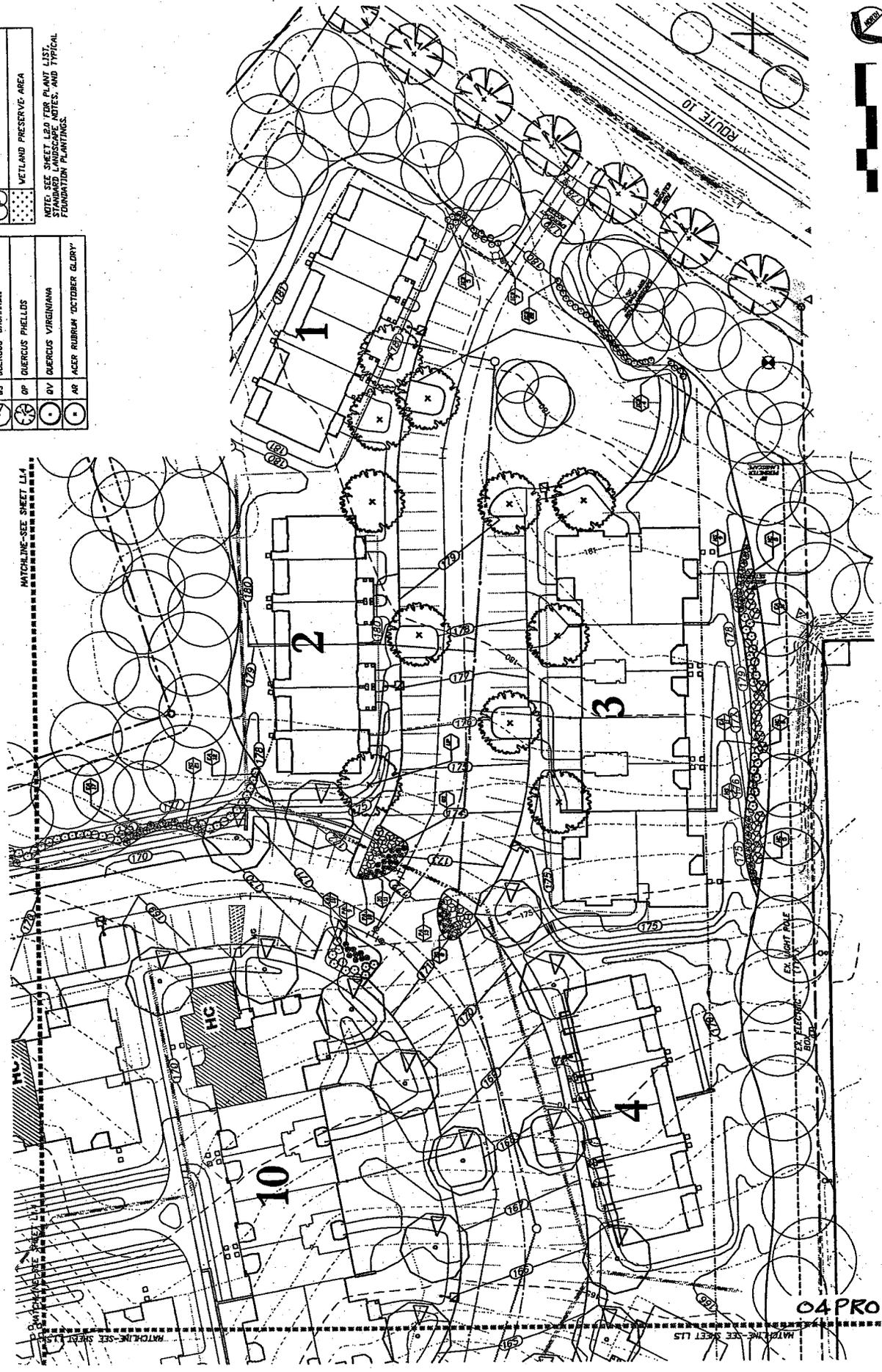
LEGEND

	SLOPE REVEGETATION MIX
	EXISTING TREE PRESERVATION
	WETLAND PRESERVE AREA

NOTE: SEE SHEET L20 FOR PLANT LIST, STANDARD LANDSCAPE NOTES, AND TYPICAL FOUNDATION PLANTINGS.

LARGE DECIDUOUS TREE LEGEND

	ULMUS PARVIFOLIA 'EMER II'
	QUERCUS 'SHAWARDII'
	QUERCUS PHELLOS
	QUERCUS VIREGIANA
	ACER RUBRUM 'OCTOBER GLORY'



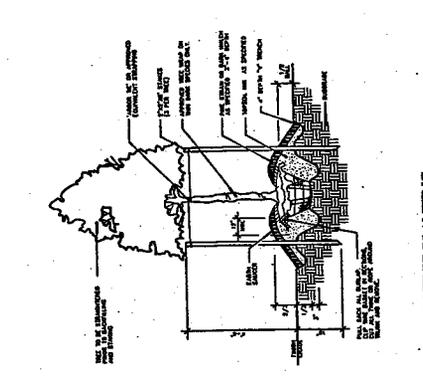
04PR0201-25

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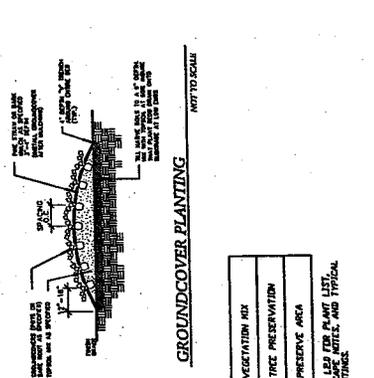
LANDSCAPE MATERIALS LIST

COMMON NAME	QTY.	CULTURAL SPECIES	HEIGHT	WIDTH	PLANTING
LARGE MATURING DECIDUOUS TREES					
AMERICAN BEECH	1	F. SPICATA	12-15'	12-15'	12-15'
RED BARKED PINE	1	P. RESINOSA	12-15'	12-15'	12-15'
SHADY BLOOMER	1	F. NIGRA	12-15'	12-15'	12-15'
WINTER BURNING	1	F. NIGRA	12-15'	12-15'	12-15'
RED BARKED PINE	1	P. RESINOSA	12-15'	12-15'	12-15'
SHADY BLOOMER	1	F. NIGRA	12-15'	12-15'	12-15'
WINTER BURNING	1	F. NIGRA	12-15'	12-15'	12-15'
EVERGREEN TREES					
WINTER BURNING	1	F. NIGRA	12-15'	12-15'	12-15'
SHADY BLOOMER	1	F. NIGRA	12-15'	12-15'	12-15'
WINTER BURNING	1	F. NIGRA	12-15'	12-15'	12-15'
SMALL MATURING DECIDUOUS TREES					
AMERICAN BEECH	1	F. SPICATA	6-8'	6-8'	6-8'
RED BARKED PINE	1	P. RESINOSA	6-8'	6-8'	6-8'
SHADY BLOOMER	1	F. NIGRA	6-8'	6-8'	6-8'
WINTER BURNING	1	F. NIGRA	6-8'	6-8'	6-8'
MEDIUM SHRUBS					
AMERICAN BEECH	1	F. SPICATA	6-8'	6-8'	6-8'
RED BARKED PINE	1	P. RESINOSA	6-8'	6-8'	6-8'
SHADY BLOOMER	1	F. NIGRA	6-8'	6-8'	6-8'
WINTER BURNING	1	F. NIGRA	6-8'	6-8'	6-8'
SMALL SHRUBS AND GROUNDCOVERS					
AMERICAN BEECH	1	F. SPICATA	6-8'	6-8'	6-8'
RED BARKED PINE	1	P. RESINOSA	6-8'	6-8'	6-8'
SHADY BLOOMER	1	F. NIGRA	6-8'	6-8'	6-8'
WINTER BURNING	1	F. NIGRA	6-8'	6-8'	6-8'
WETLAND DETENTION PLANTING					
AMERICAN BEECH	1	F. SPICATA	6-8'	6-8'	6-8'
RED BARKED PINE	1	P. RESINOSA	6-8'	6-8'	6-8'
SHADY BLOOMER	1	F. NIGRA	6-8'	6-8'	6-8'
WINTER BURNING	1	F. NIGRA	6-8'	6-8'	6-8'

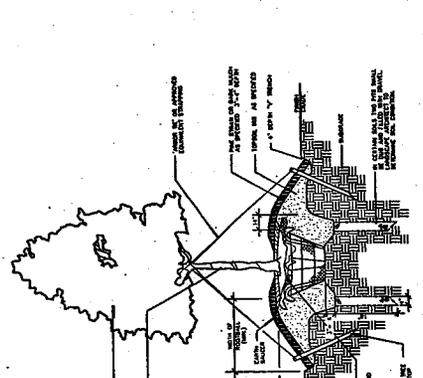
- LANDSCAPE NOTES**
- Plant materials, sizes and spacing are to comply with the latest edition of American standards for nursery stock, published by the American Association of Nurserymen, Inc.
 - Contractor shall ascertain location of all utilities prior to excavation. Prior to commencing any work, contact Mass Utility at 1-800-552-7001.
 - No changes to plant schedule unless first approved by the Chesterfield County Planning Department Plant Review Section.
 - Landscaping will be designed so as not to interfere with sight distance needs of drivers in the parking area and at the entrance/exit locations.
 - Plant material quantities and sizes will be inspected for compliance with approved plans by a site plan review agent of the Chesterfield County Planning Department prior to the release of the certificate of occupancy.
 - The owner is responsible for maintaining shrubs and trees that are required per approved landscaping plans. Dying or dead plant materials are to be replaced during the next planting season.
 - Plant materials shall have all stumps or ropes at the base of the plant cut away from the trunk (including biodegradable brands of ropes).
 - No landscaping shall be installed that obstructs access to fire hydrant or other Fire Department connections. A clear area of 5' shall be maintained around all Fire Department connections.
 - All green transformers and other utility fixtures need to be screened on at least 3 sides with landscaping.
 - All landscape areas not otherwise noted are to be turf, shrub/groundcover bed, mulch or native revegetation planting.
 - Moist entry area, ornamental areas and landscape areas between building front and parking to be irrigated with an automatic irrigation system.



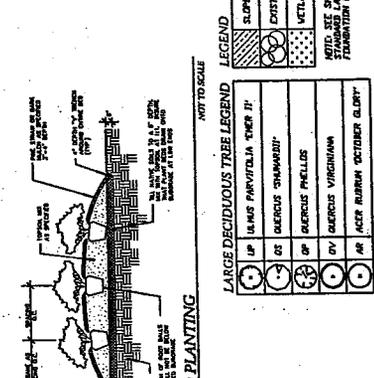
LARGE TREE PLANTING
 NOT TO SCALE



MEDIUM TREE PLANTING
 NOT TO SCALE



SHRUB BED PLANTING
 NOT TO SCALE



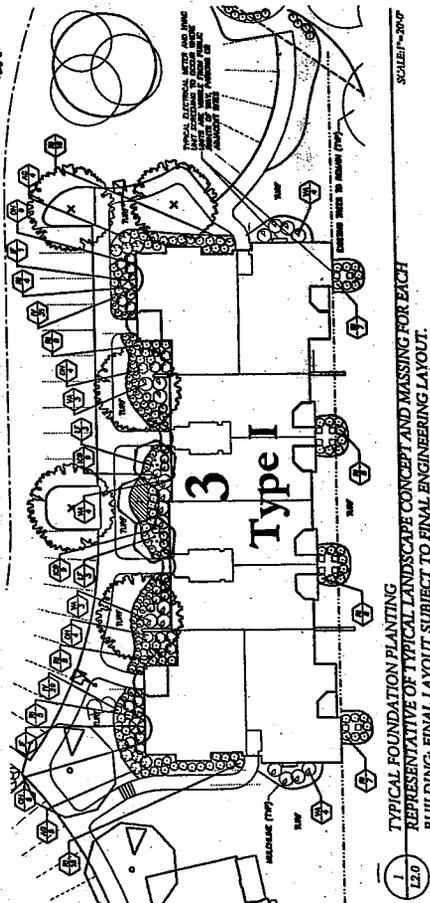
GROUND-COVER PLANTING
 NOT TO SCALE

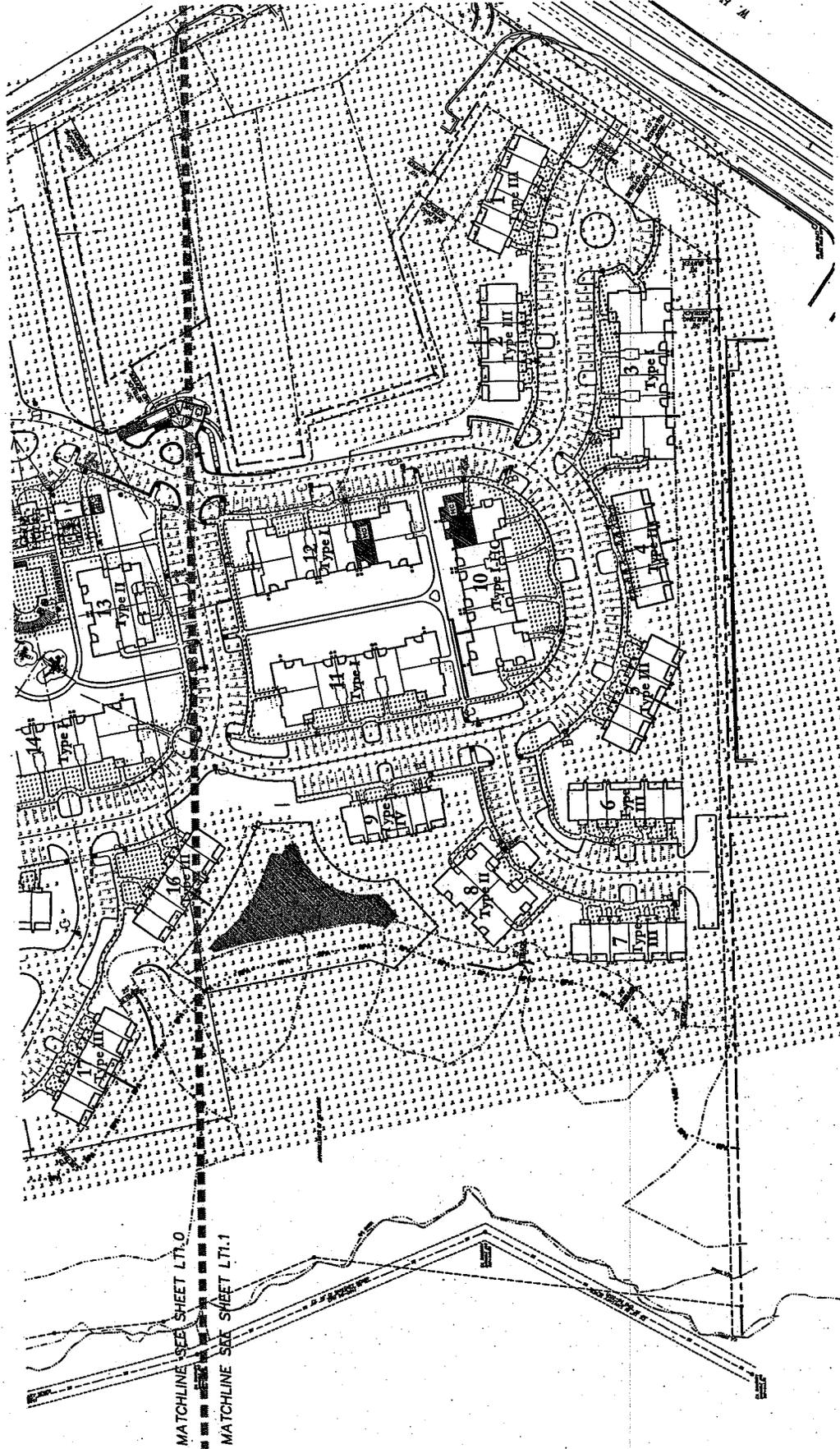
LEGEND

○	LARGE DECIDUOUS TREE LEGEND
○	LAURUS PRUNIFOLIA 'EXER II'
○	QUERCUS SHAMARDII
○	QUERCUS PHAEOLIS
○	QUERCUS VIRGINIANA
○	ACER RUBRA 'OCTOBER GLORY'

○ SLOPE REVEGETATION MIX
 ○ EXISTING TREE PRESERVATION
 ○ WETLAND PRESERVE AREA

NOTE: SEE SHEET L2.0 FOR PLANT LIST, STANDARD LANDSCAPE NOTES, AND TYPICAL FOUNDATION PLANTING.





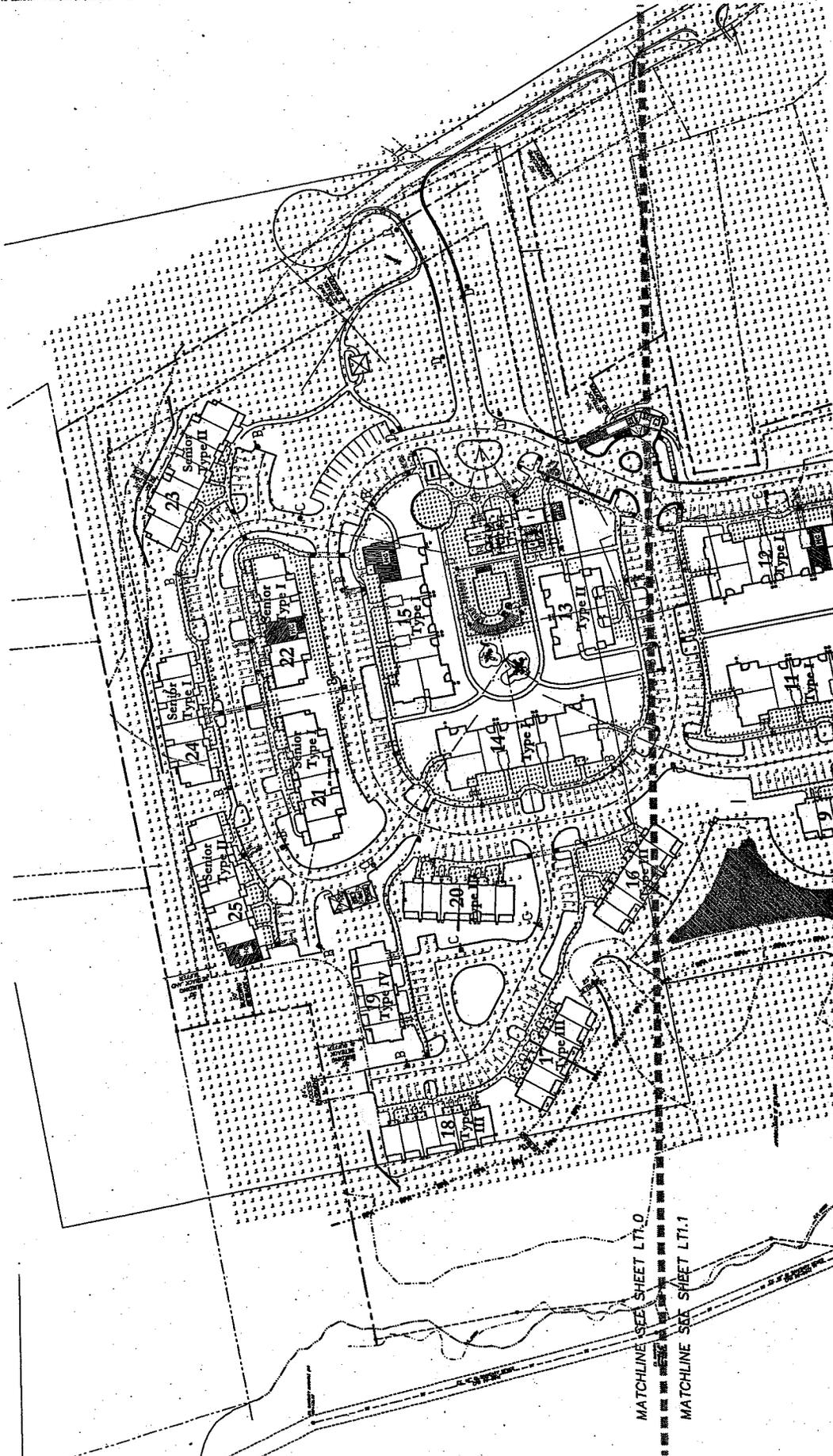
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Date: 10/22/03
File: 125808B(JM)
By: QUALITY LIGHTING, INC. - FRANKLIN PARK, IL

Label	Avg	Max	Min	Avg/Min	Max/Min
SIDEWALKS	1.49	5.9	0.0	0.00	0.00

CHESTER VIRGINIA NRP PROJECT

Qty	Description	LLF	Lumens
32	1 / SL-21-3-MH-400 / MOUNTED ON 25' POLE	0.720	40000
10	1 / SL-21-1-MH-400 / MOUNTED ON 25' POLE	0.720	40000
8	1 / ACT-16-V-SF70-MH-150 / MOUNTED ON 15' POLE	0.720	13500
2	2 / SL-21-VS-MH-400-EQL / MOUNTED ON 25' POLE	0.720	40000

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Numeric Summary
Project: CHESTER VIRGINIA NRP PROJECT

Label	Avg	Max	Min	Avg/Min	Max/Min
SIDEMARKERS	1.49	5.9	0.0	0.00	0.90

FILE: 1258066(JM) DATE: 10/22/03
BY: QUALITY LIGHTING, INC. - FRANKLIN PARK, IL

Luminaire Schedule
Project: CHESTER VIRGINIA NRP PROJECT

Label	Qty	Description	LLF	Lumens
B	32	1 / SL-21-3-MH-400 / MOUNTED ON 25' POLE	0.720	40000
C	10	1 / SL-21-1-MH-400 / MOUNTED ON 25' POLE	0.720	40000
D	8	1 / ACT-16-V-SF70-MH-150 / MOUNTED ON 15' POLE	0.720	13500
E	2	2 / SL-21-VS-MH-400-FGL / MOUNTED ON 25' POLE	0.720	40000

MATCHLINE SEE SHEET LT1.0
MATCHLINE SEE SHEET LT1.1

CHESTER VIRGINIA NRP PROJECT

04P.0201204